TELEFUNKEN SERVICE

AUDIOVISION

Videorecorder
5943

Bestell-Nr. 319 494 787

Stromlaufpläne · Lagepläne
Service-Hinweise

Schematic Diagrams · Component
Layouts · Service Instructions

Änderungen vorbehalten · Subject to modifications · Modifications réservées · Con riserva di modifiche

Service-Hinweise

Hinweis:

Die vorliegende Service-Information enthält nur den kompl. Schaltbildteil. Die mechanischen und elektrischen Einstellungen entnehmen Sie bitte der Service-Information 5945 (319 494 190).

Das Laufwerk, die Videoköpfe und alle Bandführungen benötigen nach ca. 500 Betriebsstunden periodische Reinigung und Pflege, um die normale Leistungsfähigkeit zu erhalten. Die Wartungs-Hinweise sind als Kurzanleitung gedacht.

Pflege und Wartung

Die folgenden Teile benötigen eine periodische Reinigung und Fettung, um ihre normale Leistungsfähigkeit zu erhalten:

A. Trommelsystem

1. Die Kopftrommel, die Lösch-, Audio- und Synchronköpfe, die zwei Bandführungen und die zwei Führungsrollen müssen regelmäßig gereinigt werden. Da diese Teile direkten Kontakt mit dem Video-Band haben, nehmen sie leicht Staub an.

   Vorsicht:

   Wenn die beiden Video-Köpfe auf der Kopftrommel gereinigt werden, sind sie nicht in senkrechter Richtung zu bearbeiten. Mit möglichst sanfter Hin- und Rückbewegung in Richtung des Bandweges die Trommel säubern, da die Köpfe aus Ferrit hergestellt sind und leicht zerbrechen können.
2. Zum Reinigen ausschließlich ein staubfreies Ledertuch benutzen, welches mit reinem Alkohol angefeuchtet wurde.
3. Nachdem die Teile mit Alkohol gereinigt wurden, sollten sie einige Zeit trocknen, bevor das Cassetten-Band benutzt wird, da der Alkohol das Band beschädigen könnte.

Service Instructions

Note:

This service information included the complete circuit diagrams. The electrical and mechanical adjustments quote from the service manual 5945 (319 494 190).

The mechanism, the video heads and all tape guides require periodic cleaning and attention after approximately 500 operation hours to maintain the normal performance capability. The Service-Notes are to be regarded as abridged instructions.

Cleaning and maintenance

The following parts require a periodic cleaning and lubrication to retain their normal performance.

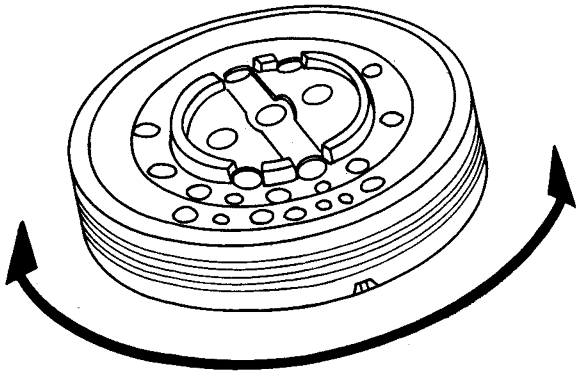
A. Drum system

1. Clean the head drum, the erase, audio and synchronizing heads, the two guide poles and the two guide rollers occasionally. Since these parts make direct contact with the video tape they tend to collect dust.

   Caution:

   When cleaning the two video heads on the upper drum, DO NOT clean them with vertical strokes. Use only a gentle to and fro movement in the direction of the tape travel. Take great care as the heads are made of ferrite and are very fragile.
2. For cleaning use a chamois leather moistened with pure isopropyl alcohol.
3. After cleaning with alcohol, allow the parts to dry before using a cassette tape. Alcohol can damage the tape.

Reinigung der Kopftrommel –
Head drum cleaning



B. Andruckrolle und Capstan-Welle

1. Staub an der Andruckrolle oder der Capstan-Welle kann deren Funktionsfähigkeit beeinträchtigen.
2. Die Oberfläche der Andruckrolle und die Capstan-Welle sollten mit einer milden Waschmittellösung und einem staubfreien Tuch gereinigt werden.

   Achtung:

   Alkohol kann Gummi angreifen.

Kanal des eingebauten Modulators abstimmen

Werksseitig ist der Modulator auf Kanal 36 im UHF-Bereich abgestimmt. Wenn dieser Kanal am Aufstellungsort des Videorecorders bereits durch einen Fernsehsender belegt ist, muß für den Videorecorder ein anderer Kanal gewählt werden, um gegenseitige Bild- und Tonstörungen zu vermeiden.

1. Die Abstimmung des Fernsehgerätes geringfügig verstellen, bis der Bildschirm nur noch Rauschen zeigt.
2. Testbild-Schalter in Pos. „Ein“ schalten.
3. Mit Schraubendreher den Abstimmkern des Modulators auf der Rückseite verdrehen, bis das Testbild optimal wiedergegeben wird.

B. Pinch roller and capstan shaft

1. Dust on the pinch roller or the capstan shaft can impair their operation.
2. Clean the pinch roller surface and the capstan shaft with a mild detergent solution and a lint-free cloth.

   Note:

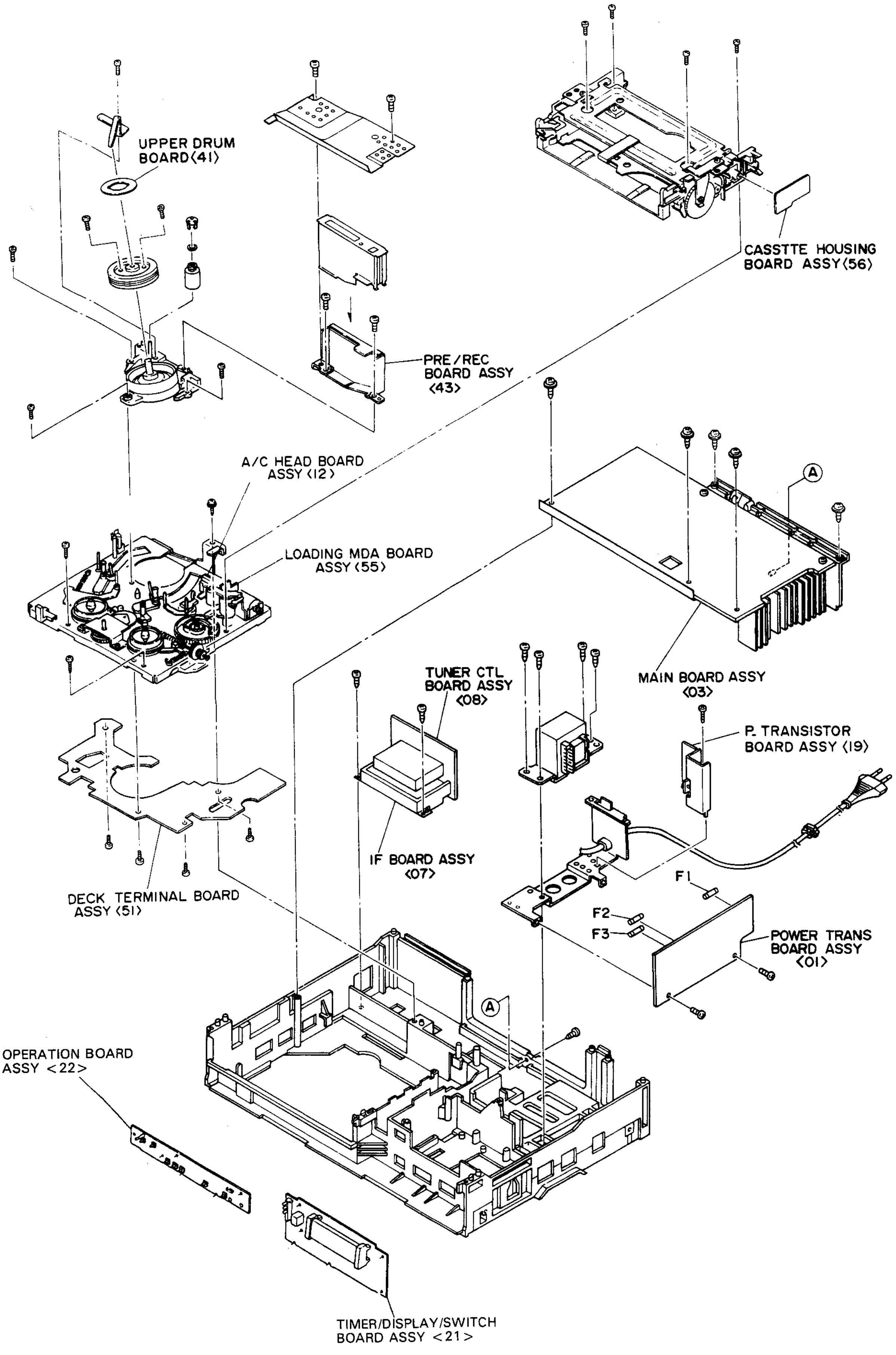
   Alcohol can cause rubber to deteriorate.

Tuning the channel of the built-in modulator

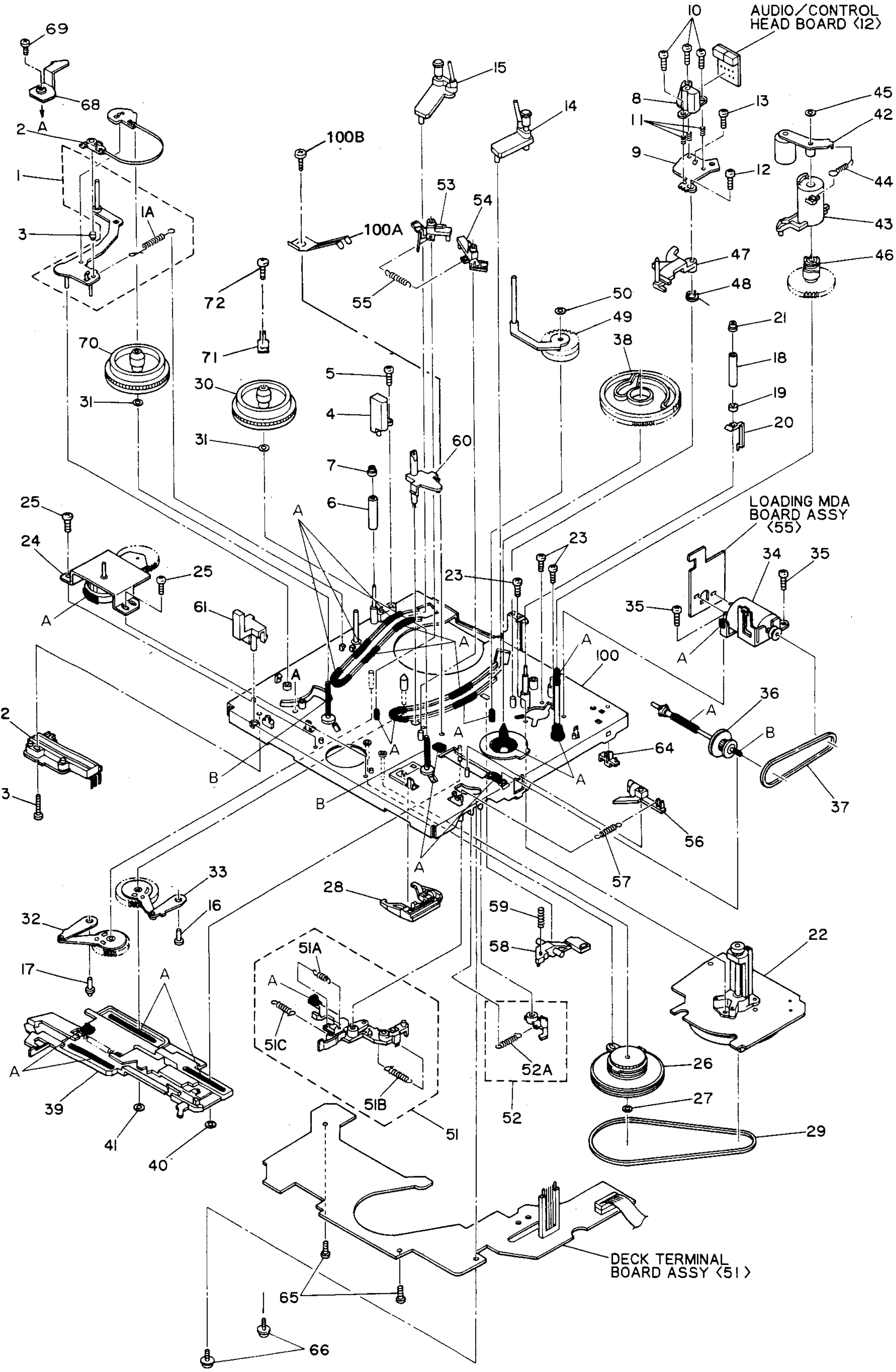
The modulator is factory tuned to channel 36 in the UHF range. When this channel is already occupied by a television transmitter in the location where the video recorder is to be installed, then another channel must be selected to avoid mutual vision and sound interference.

1. Slightly detune the television receiver until the screen displays noise only.
2. Set the TEST switch, located on the rear panel, to ON.
3. With a screwdriver adjust the tuning core of the modulator at the rear of the recorder until the test pattern is reproduced to optimum.

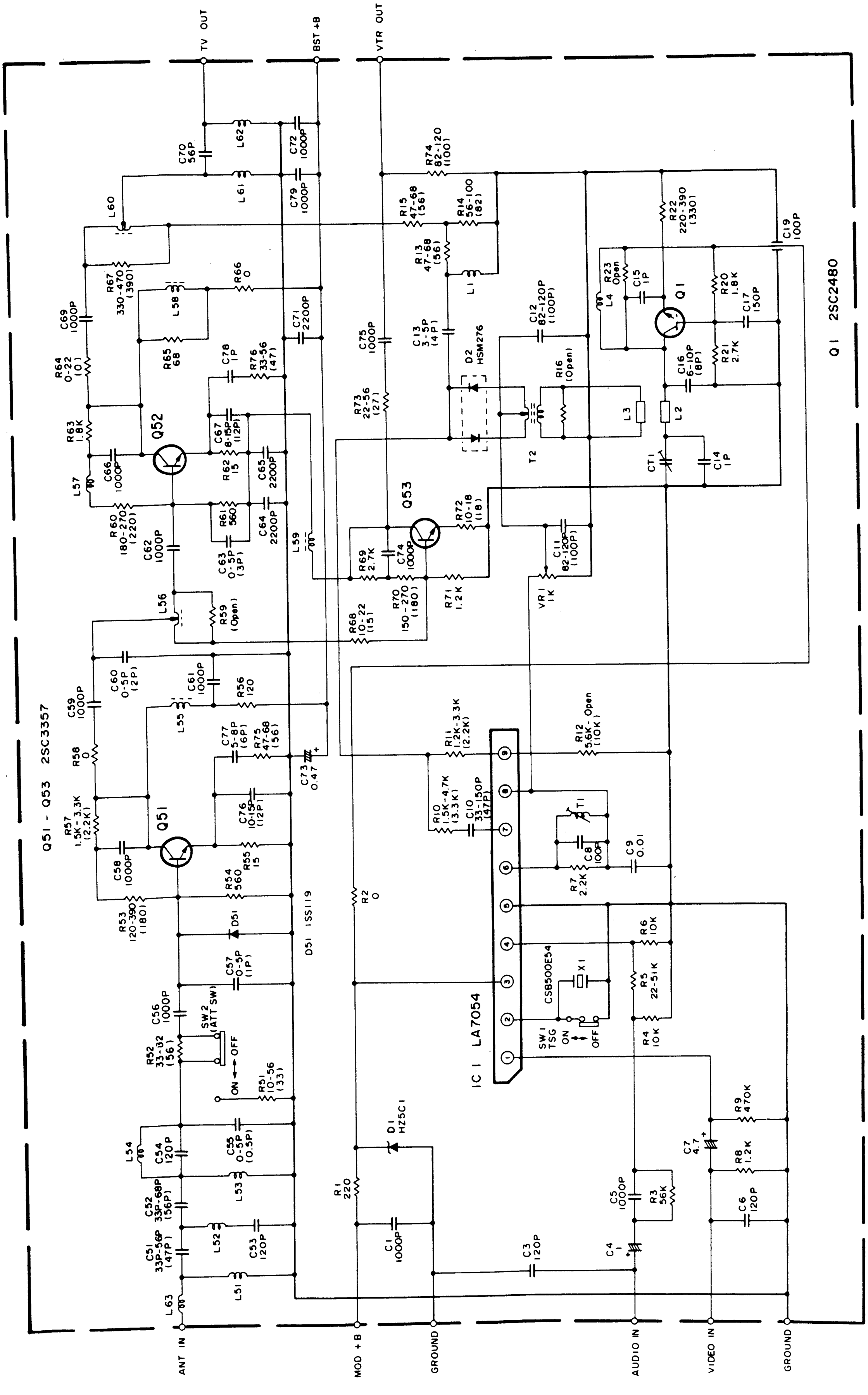
Lageplan der Leiterplatten
Position plan of P.C.B.'s


UPPER DRUM BOARD⟨41⟩
CASSTTE HOUSING BOARD ASSY⟨56⟩
PRE/REC BOARD ASSY ⟨43⟩
A/C HEAD BOARD ASSY ⟨12⟩
A
LOADING MDA BOARD ASSY ⟨55⟩
TUNER CTL BOARD ASSY ⟨08⟩
MAIN BOARD ASSY ⟨03⟩
P. TRANSISTOR BOARD ASSY ⟨19⟩
IF BOARD ASSY ⟨07⟩
F1
F2
F3
POWER TRANS BOARD ASSY ⟨01⟩
DECK TERMINAL BOARD ASSY ⟨51⟩
A
OPERATION BOARD ASSY <22>
TIMER/DISPLAY/SWITCH BOARD ASSY <21>

Explosionszeichnung Chassis
Exploded diagram chassis


69
68
2
A
1
1A
3
100B
100A
15
14
53
54
55
72
71
70
31
30
31
5
4
7
6
60
10
AUDIO/CONTROL HEAD BOARD ⟨12⟩
8
13
11
9
12
45
42
44
43
47
46
48
50
49
38
21
18
19
20
LOADING MDA BOARD ASSY ⟨55⟩
25
24
25
A
61
62
63
23
23
34
35
35
A
100
36
B
37
64
56
57
B
B
A
33
32
16
17
28
59
58
51A
51C
51B
51
52A
52
22
26
27
29
A
39
41
40
DECK TERMINAL BOARD ASSY ⟨51⟩
65
66

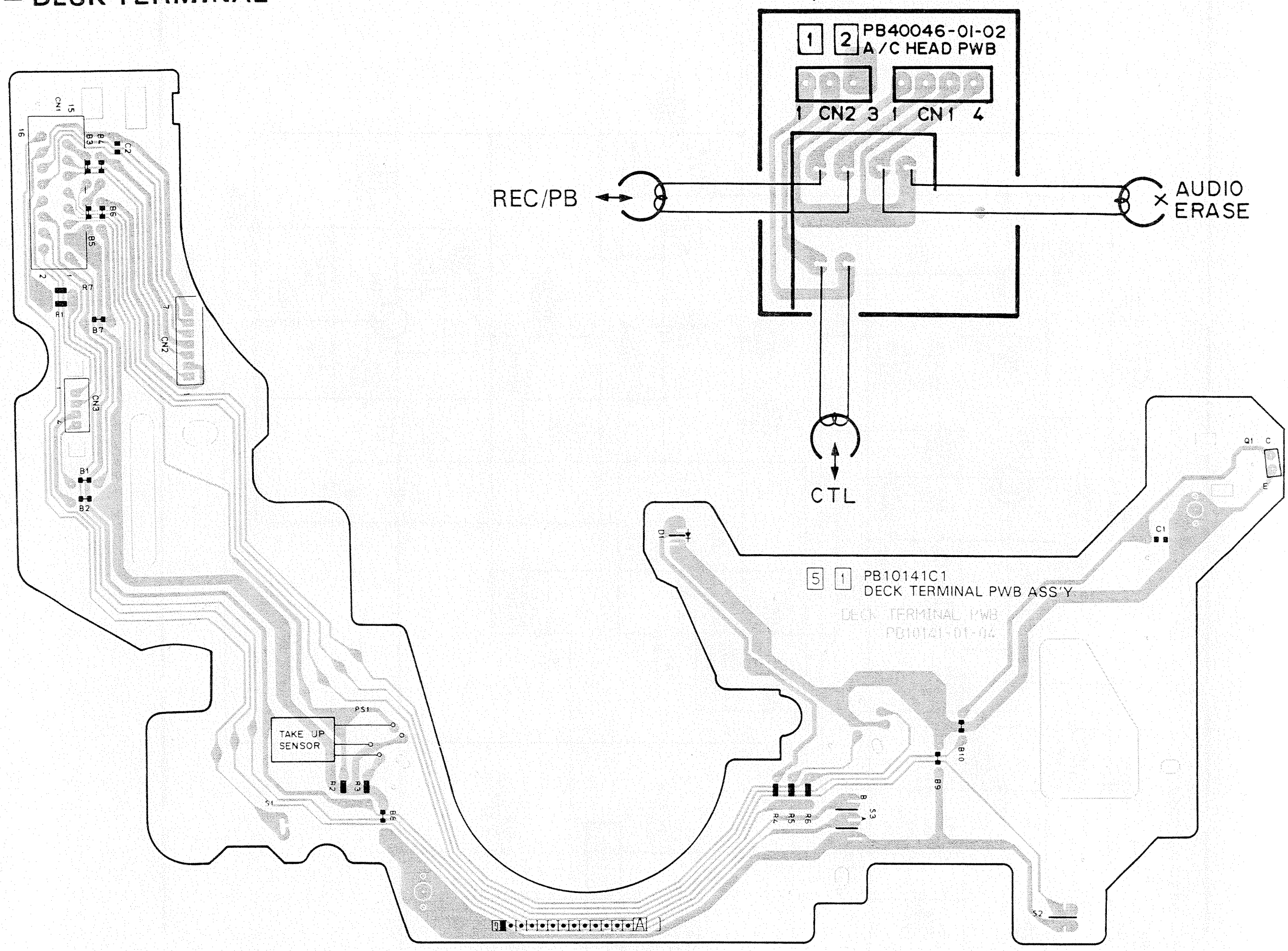
Antennenverteiler und HF- Modulator
Power splitter and RF modulator


TV OUT
BST +B
VTR OUT
ANT IN
MOD +B
GROUND
AUDIO IN
VIDEO IN
GROUND
Q51 - Q53 2SC3357
Q1 2SC2480
IC1 LA7054
Q51
Q52
Q53
Q1
D51 1SS119
D1 HZ5C1
D2 HSM276
CSB500E54
X1
T1
T2
SW1 TSG ON OFF
SW2 (ATT SW) ON OFF
C70 56P
C72 1000P
C79 1000P
L60
L61
L62
R74 82-120 (100)
R15 47-68 (56)
R14 56-100 (82)
R13 47-68 (56)
L1
C19 100P
R22 220-390 (330)
R23 Open
C15 1P
L4 Open
R20 1.8K
C17 150P
C69 1000P
R67 330-470 (390)
L58
R66 0
C71 2200P
C75 1000P
C13 3-5P (4P)
C12 82-120P (100P)
R64 0-22 (10)
R65 68
C78 1P
R76 33-56 (47)
R16 (Open)
C16 6-10P (8P)
R21 2.7K
R73 22-56 (27)
L3
L2
R63 1.8K
C66 1000P
C67 8-15P (12P)
R62 15
C65 2200P
CT1
C14 1P
L57
R60 180-270 (220)
R61 560
C64 2200P
R72 10-18 (18)
C62 1000P
C63 0-5P (3P)
L59
R69 2.7K
C74 1000P
C11 82-120P (100P)
L56
R59 (Open)
R70 150-270 (180)
R71 1.2K
VR1 1K
R68 10-22 (15)
C59 1000P
C60 0-5P (2P)
C61 1000P
R56 120
L55
R11 1.2K-3.3K (2.2K)
R12 5.6K- Open (10K)
R58 0
C77 5-8P (6P)
R75 47-68 (56)
C73 0.47
R57 1.5K-3.3K (2.2K)
R10 1.5K-4.7K (3.3K)
C10 33-150P (47P)
C76 10-15P (12P)
C58 1000P
R55 15
C8 100P
C9 0.01
R7 2.2K
R53 120-390 (180)
R54 560
R2 0
R6 10K
C57 0-5P (1P)
R5 22-51K
C56 1000P
R52 33-82 (56)
R4 10K
R51 10-56 (33)
R9 470K
L54
C54 120P
C55 0-5P (0.5P)
C7 4.7
R8 1.2K
C52 33P-68P (56P)
L53
R1 220
C5 1000P
R3 56K
C6 120P
C51 33P-56P (47P)
L52
C53 120P
C1 1000P
C3 120P
C4 1
L51
L63
1
2
3
4
5
6
7
8
9

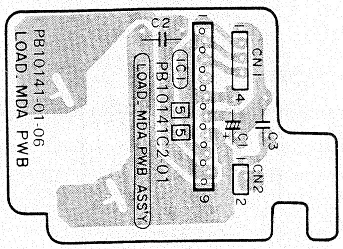
Leiterplatten Laufwerk
P.C.B.'s Mecha deck

– DECK TERMINAL –

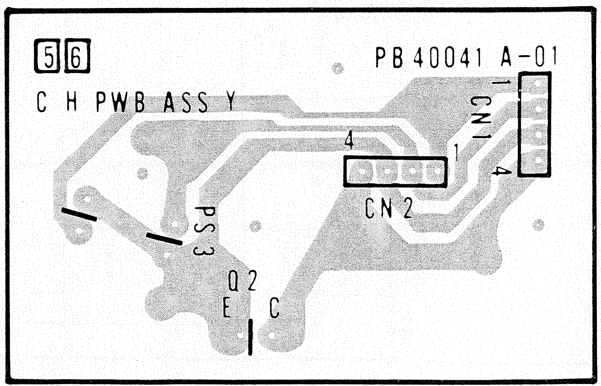
– A/CTL HEAD –


1 2 PB40046-01-02
A/C HEAD PWB
1 CN2 3 1 CN1 4
REC/PB
AUDIO
ERASE
CTL
CN1
15
16
B4
B3
C2
B6
B5
R7
R1
B7
CN2
CN3
B1
B2
PS1
TAKE UP SENSOR
R2
R3
B8
S1
R4
R5
R6
S3
B9
B10
S2
D1
C1
Q1
C
E
5 1 PB10141C1
DECK TERMINAL PWB ASS'Y
DECK TERMINAL PWB
PB10141-01-04

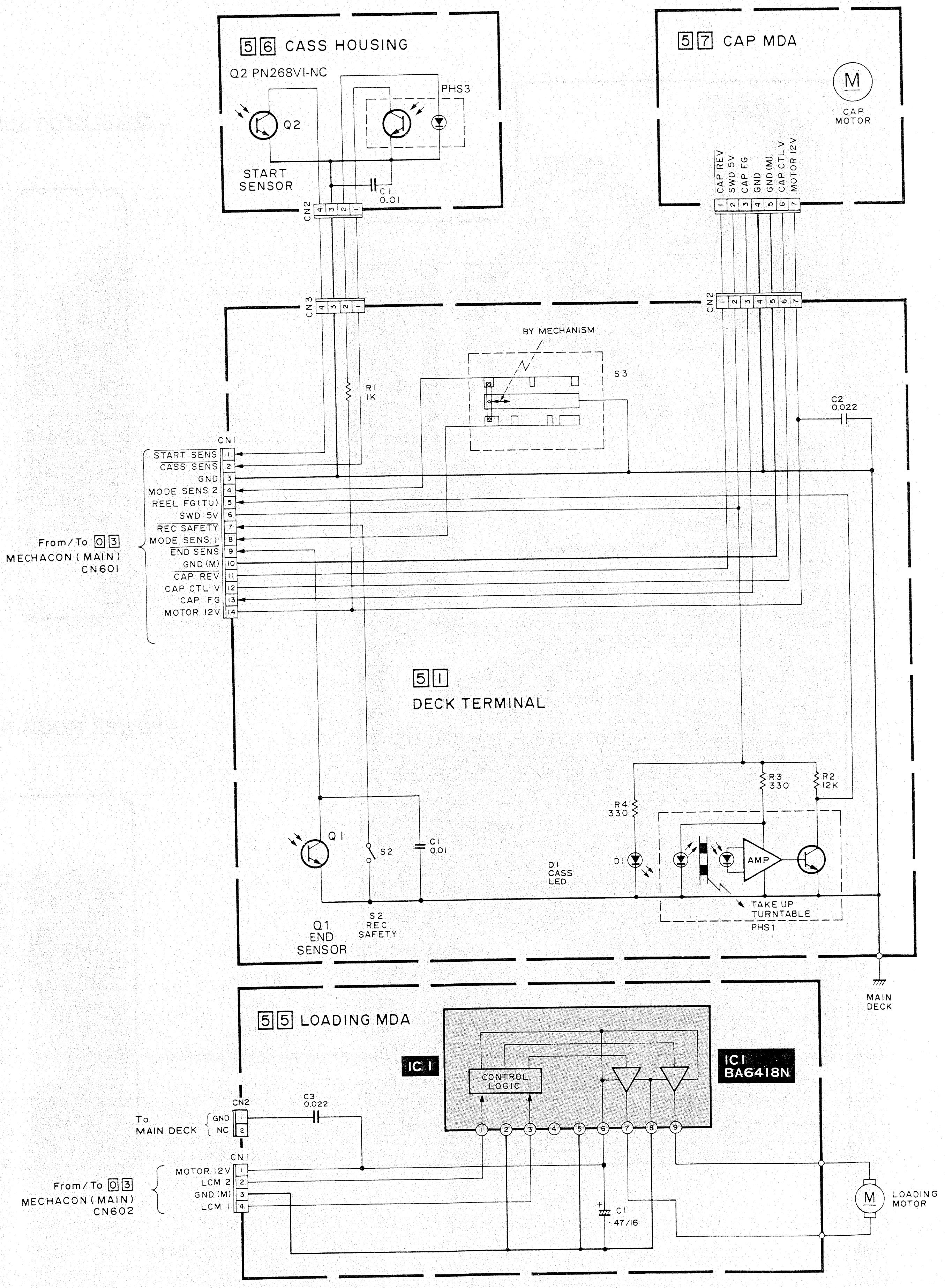
– LOADING MDA –


PB10141-01-06
LOAD. MDA PWB
C2
IC1 5 5
PB10141C2-01
LOAD. MDA PWB ASS'Y
CN1
4
C1
C3
CN2
9
2

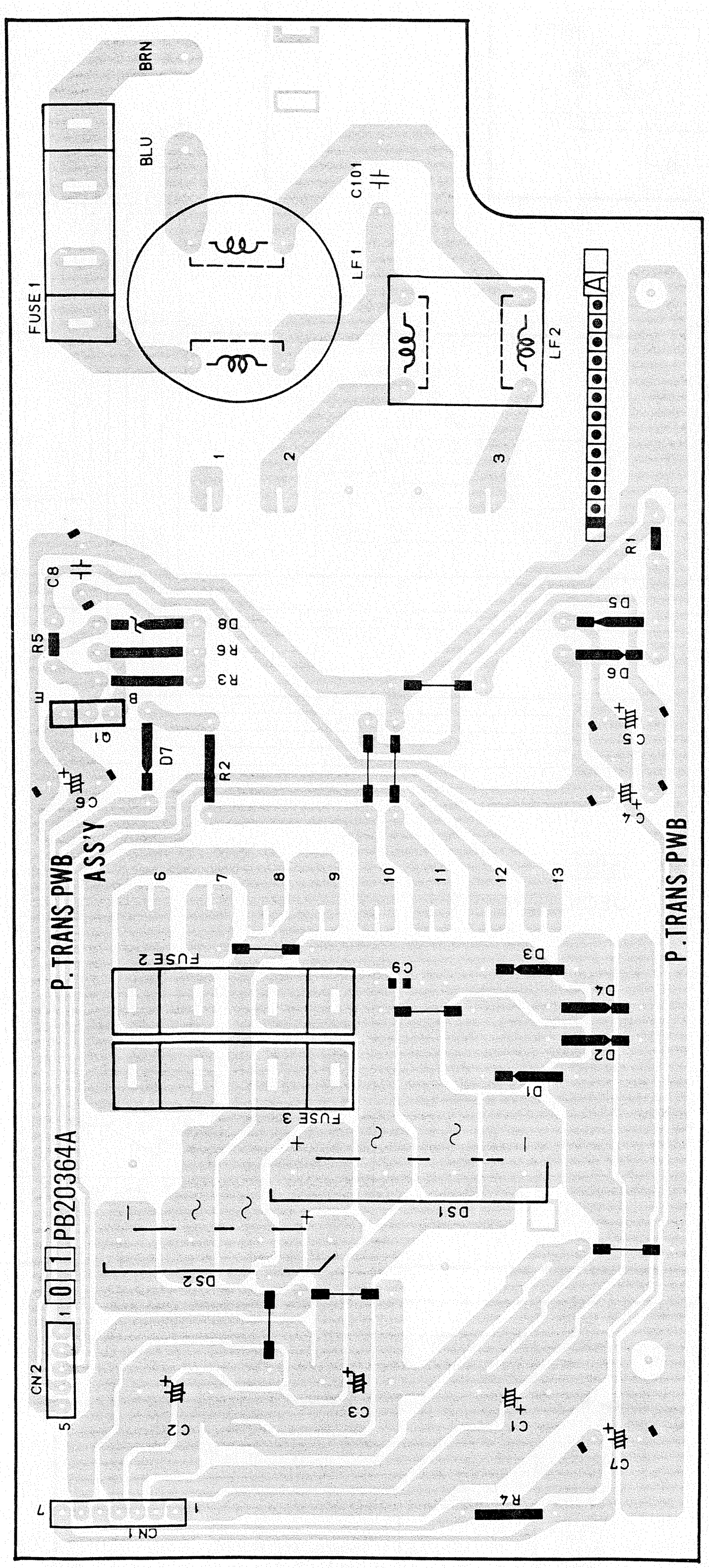
– CASSETTE HOUSING –


5 6
PB 40041 A-01
C H PWB ASS Y
CN1
1
4
CN2
4
1
PS3
Q2
E C

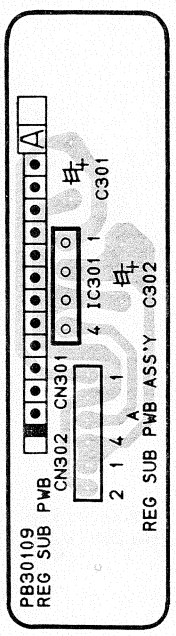
Schaltung Laufwerk
Mecha deck circuit diagram


56 CASS HOUSING
Q2 PN268VI-NC
PHS3
Q2
START SENSOR
C1 0.01
CN2
57 CAP MDA
M
CAP MOTOR
CAP REV
SWD 5V
CAP FG
GND
GND (M)
CAP CTL V
MOTOR 12V
CN3
CN2
BY MECHANISM
S3
R1 1K
C2 0.022
CN1
START SENS
CASS SENS
GND
MODE SENS 2
REEL FG(TU)
SWD 5V
REC SAFETY
MODE SENS 1
END SENS
GND (M)
CAP REV
CAP CTL V
CAP FG
MOTOR 12V
From/To 03 MECHACON (MAIN) CN601
51 DECK TERMINAL
R3 330
R2 12K
R4 330
Q1
S2
C1 0.01
D1 CASS LED
D1
AMP
TAKE UP TURNTABLE
PHS1
Q1 END SENSOR
S2 REC SAFETY
MAIN DECK
55 LOADING MDA
IC 1
CONTROL LOGIC
IC1 BA6418N
CN2
C3 0.022
To MAIN DECK
GND
NC
CN1
MOTOR 12V
LCM 2
GND (M)
LCM 1
From/To 03 MECHACON (MAIN) CN602
C1 47/16
M
LOADING MOTOR

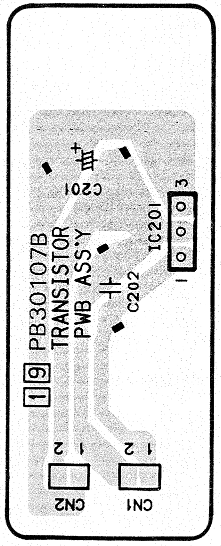
Leiterplatten Netzteil
P.C.B.'s Power supply


BRN
BLU
FUSE 1
C101
LF1
LF2
A
1
2
3
C8
R5
D8
R6
R3
E
B
Q1
D7
R2
C6
P.TRANS PWB ASS'Y
R1
D5
D6
C5
C4
6
7
8
9
10
11
12
13
P.TRANS PWB
FUSE 2
C9
D3
D4
D2
D1
FUSE 3
DS1
DS2
1 0 1 PB20364A
CN2
5
C2
C3
C1
C7
R4
CN1
7

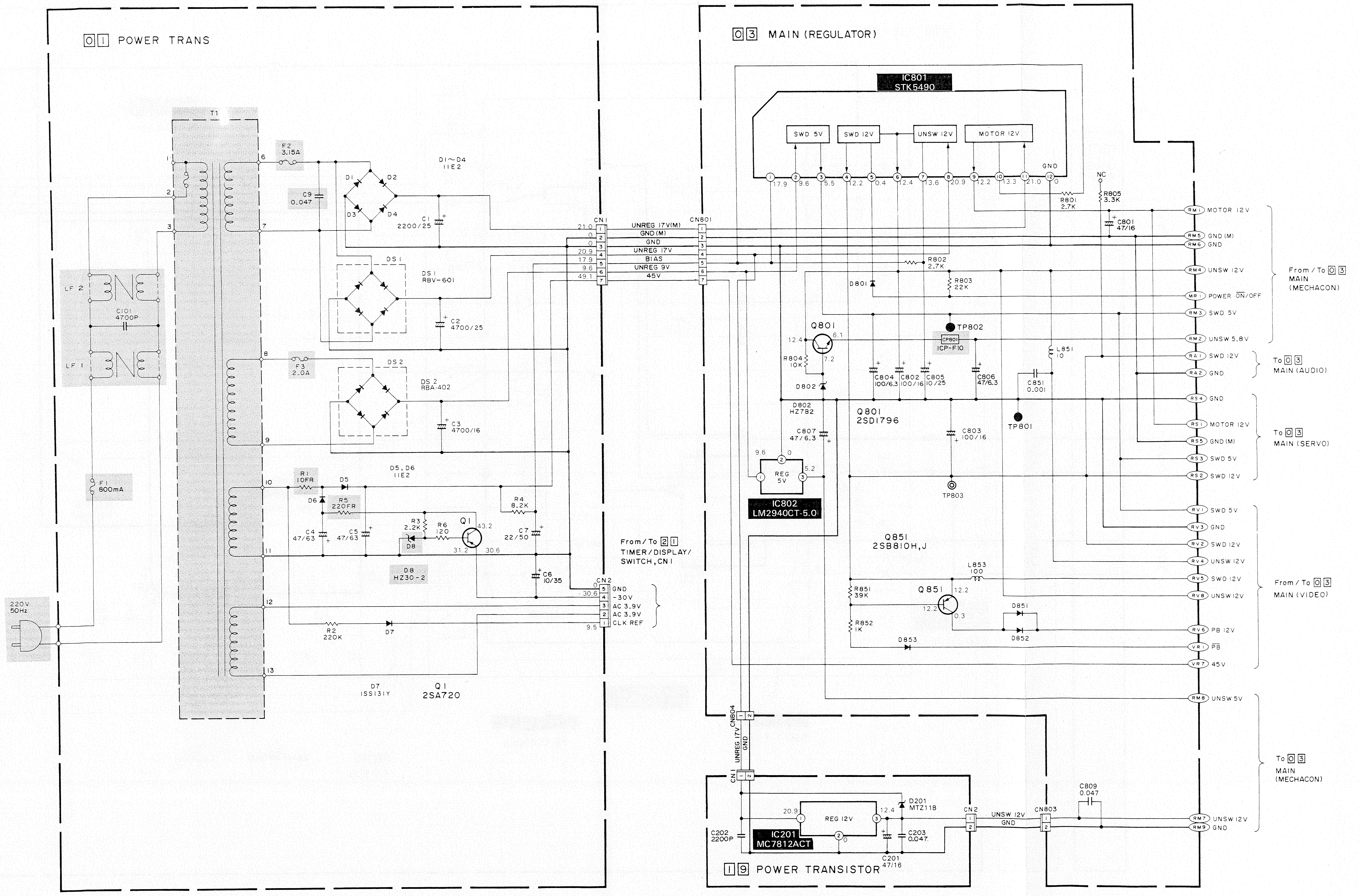
—REGULATOR SUB—


A
C301
IC301
1
4
C302
CN301
CN302
2 1 4
A
REG SUB PWB ASS'Y
PB30109
REG SUB PWB

—POWER TRANSISTOR—

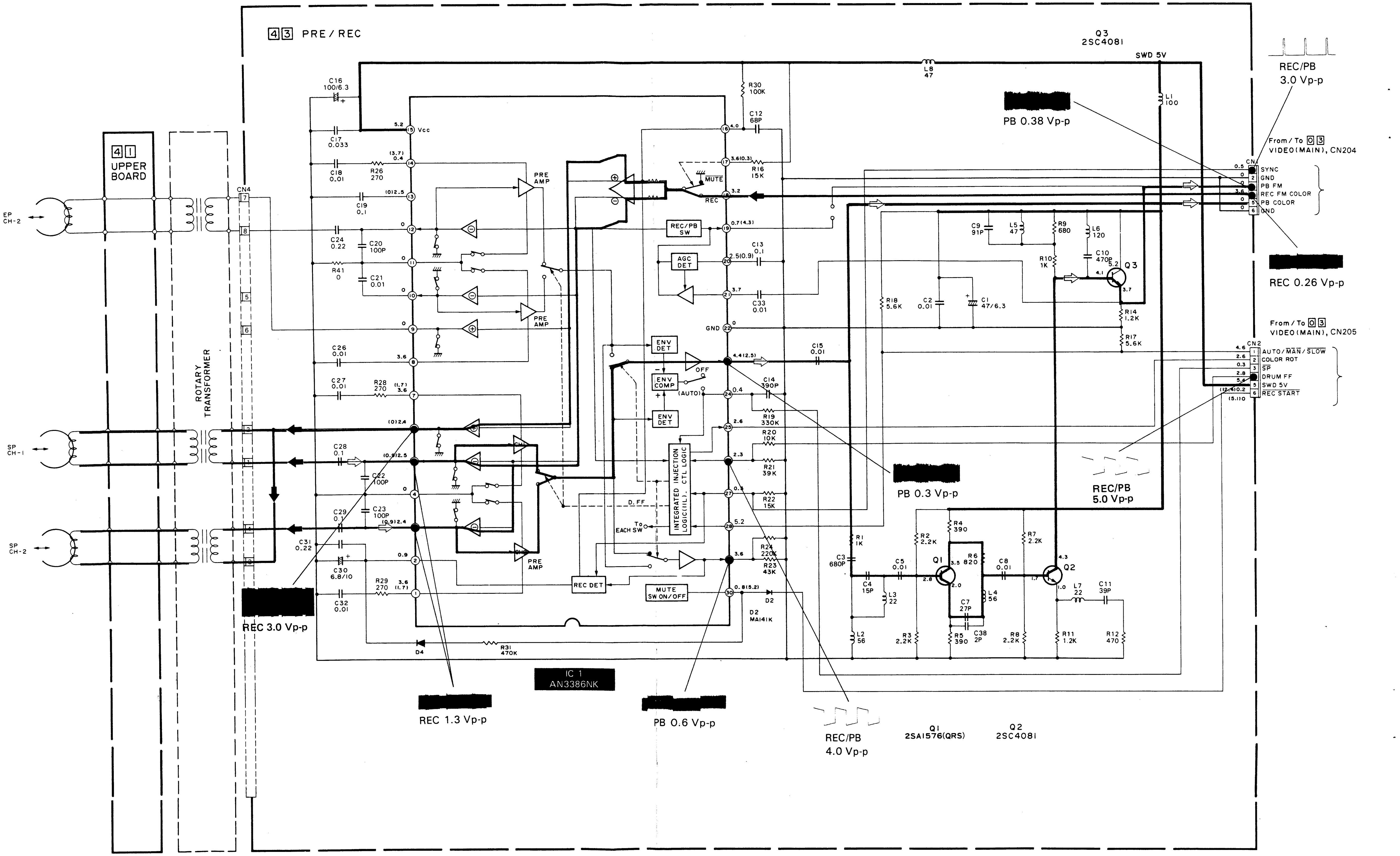

C201
IC201
3
1
C202
1 9 PB30107B
TRANSISTOR
PWB ASS'Y
2 1
1 2
CN2
CN1

Netzteil
Power supply



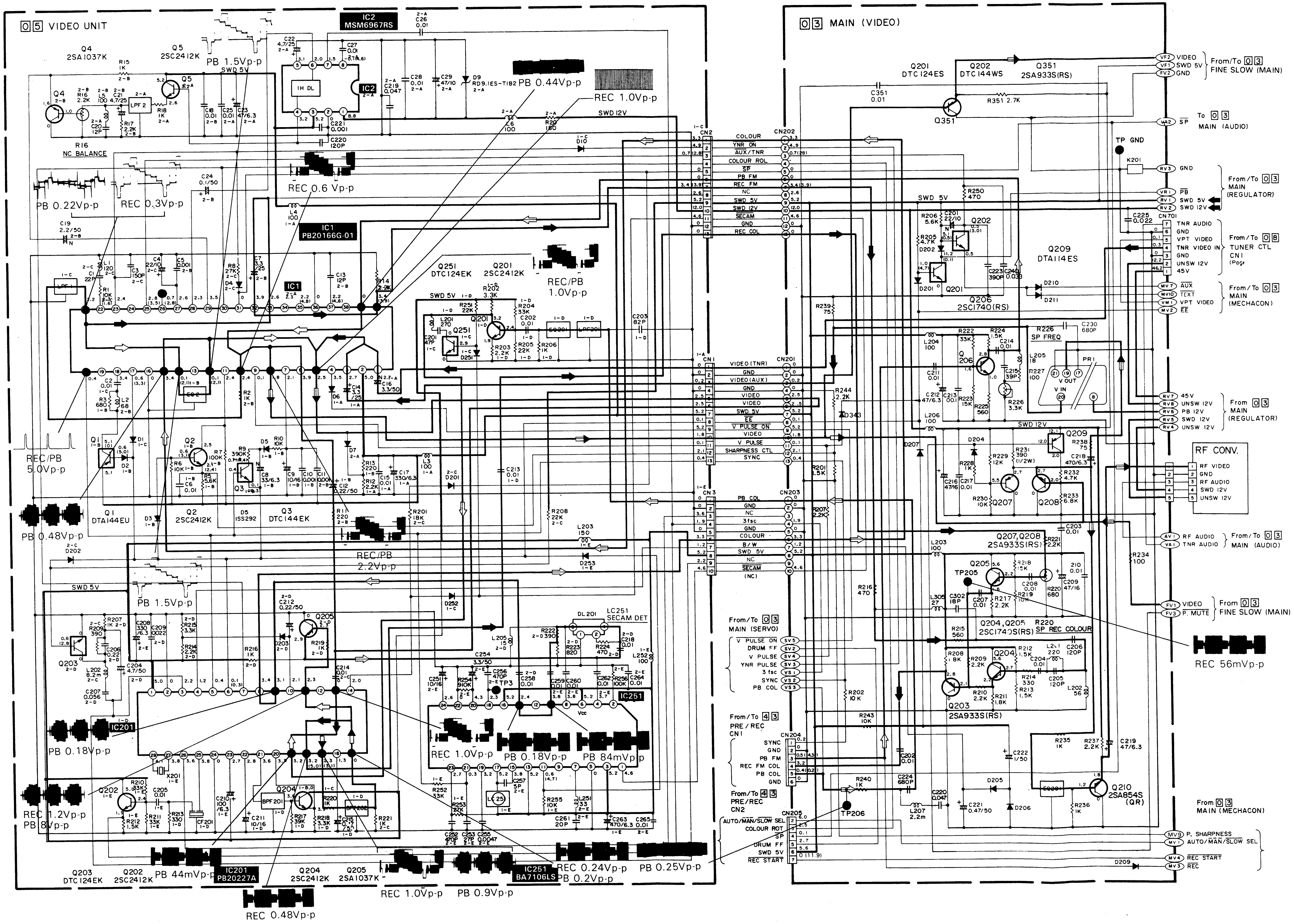
01 POWER TRANS
T1
F2 3.15A
C9 0.047
D1～D4 11E2
D1
D2
D3
D4
C1 2200/25
DS1
DS1 RBV-601
C2 4700/25
LF2
C101 4700P
LF1
F3 2.0A
DS2
DS2 RBA-402
C3 4700/16
F1 800mA
220V 50Hz
R1 10FR
D5
D6
R5 220FR
D5, D6 11E2
R3 2.2K
R6 120
Q1
43.2
R4 8.2K
C4 47/63
C5 47/63
D8
31.2
30.6
C7 22/50
D8 HZ30-2
C6 10/35
R2 220K
D7
D7 1SS131Y
Q1 2SA720
CN1
21.0
0
0
20.9
17.9
9.6
49.1
UNREG 17V(M)
GND(M)
GND
UNREG 17V
BIAS
UNREG 9V
45V
CN801
From/To 21 TIMER/DISPLAY/SWITCH, CN1
CN2
GND
-30V
AC 3.9V
AC 3.9V
CLK REF
30.6
9.5
03 MAIN (REGULATOR)
IC801 STK5490
SWD 5V
SWD 12V
UNSW 12V
MOTOR 12V
GND
17.9
9.6
5.5
12.2
0.4
12.4
13.6
20.9
12.2
13.3
21.0
0
NC
R805 3.3K
R801 2.7K
C801 47/16
R802 2.7K
D801
R803 22K
Q801
12.4
6.1
7.2
R804 10K
TP802
CP801 ICP-F10
D802
D802 HZ7B2
C804 100/6.3
C802 100/16
C805 10/25
C806 47/6.3
L851 10
C851 0.001
Q801 2SD1796
TP801
C807 47/6.3
C803 100/16
9.6
0
REG 5V
5.2
IC802 LM2940CT-5.0
TP803
Q851 2SB810H,J
L853 100
R851 39K
Q851
12.2
12.2
0.3
R852 1K
D851
D852
D853
CN804
UNREG 17V
GND
CN1
20.9
REG 12V
12.4
0
D201 MTZ11B
C202 2200P
IC201 MC7812ACT
C203 0.047
C201 47/16
CN2
UNSW 12V
GND
CN803
C809 0.047
19 POWER TRANSISTOR
RM1 MOTOR 12V
RM5 GND (M)
RM6 GND
RM4 UNSW 12V
MR1 POWER ON/OFF
RM3 SWD 5V
RM2 UNSW 5.8V
From/To 03 MAIN (MECHACON)
RA1 SWD 12V
RA2 GND
To 03 MAIN (AUDIO)
RS4 GND
RS1 MOTOR 12V
RS5 GND (M)
RS3 SWD 5V
RS2 SWD 12V
To 03 MAIN (SERVO)
RV1 SWD 5V
RV3 GND
RV2 SWD 12V
RV4 UNSW 12V
RV5 SWD 12V
RV8 UNSW 12V
RV6 PB 12V
VR1 PB
VR7 45V
From/To 03 MAIN (VIDEO)
RM8 UNSW 5V
To 03 MAIN (MECHACON)
RM7 UNSW 12V
RM9 GND

Leiterplatte Vor- und Aufnahmeverstärker
P.C.B. Pre- and record amplifier

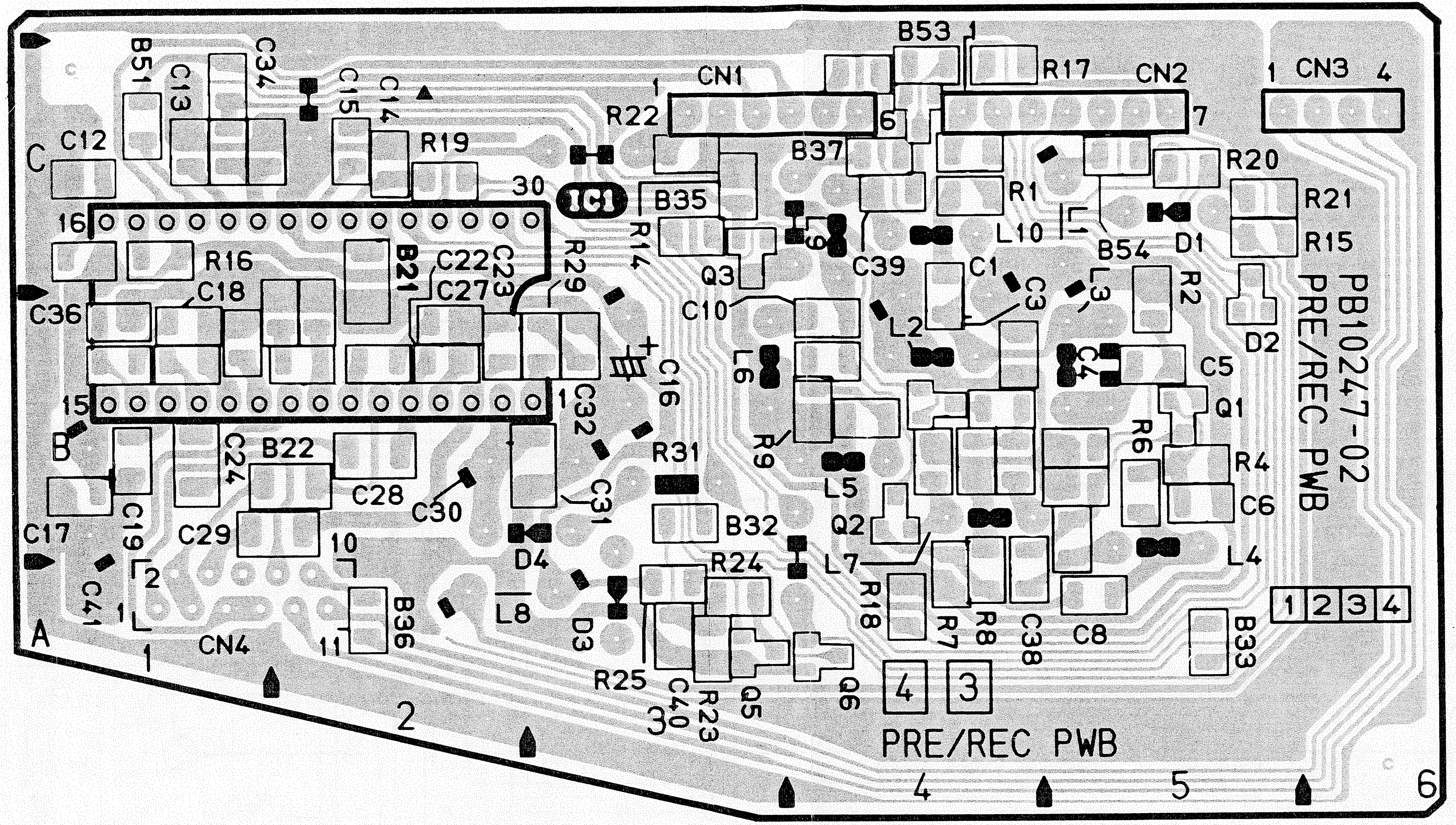


4 3 PRE / REC
4 1 UPPER BOARD
ROTARY TRANSFORMER
EP CH-2
SP CH-1
SP CH-2
CN4
IC 1 AN3386NK
Q1 2SA1576(QRS)
Q2 2SC4081
Q3 2SC4081
SWD 5V
PRE AMP
REC/PB SW
AGC DET
ENV DET
ENV COMP
REC DET
MUTE SW ON/OFF
MUTE
REC
OFF
(AUTO)
D. FF
To EACH SW
INTEGRATED INJECTION LOGIC(IIL), CTL LOGIC
GND
Vcc
C16 100/6.3
C17 0.033
C18 0.01
C19 0.1
C20 100P
C21 0.01
C22 100P
C23 100P
C24 0.22
C26 0.01
C27 0.01
C28 0.1
C29 0.1
C30 6.8/10
C31 0.22
C32 0.01
C12 68P
C13 0.1
C14 390P
C15 0.01
C33 0.01
R26 270
R28 270
R29 270
R41 0
R30 100K
R16 15K
R19 330K
R20 10K
R21 39K
R22 15K
R24 220K
R23 43K
R31 470K
D2 MA141K
D4
L8 47
L1 100
C9 91P
L5 47
R9 680
L6 120
C10 470P
R10 1K
R14 1.2K
R17 5.6K
R18 5.6K
C2 0.01
C1 47/6.3
C3 680P
R1 1K
C4 15P
L3 22
L2 56
C5 0.01
R2 2.2K
R3 2.2K
R4 390
R5 390
R6 820
C7 27P
C38 2P
L4 56
C8 0.01
R7 2.2K
R8 2.2K
L7 22
C11 39P
R11 1.2K
R12 470
From / To 0 3 VIDEO(MAIN), CN204
CN1
1 SYNC
2 GND
3 PB FM
4 REC FM COLOR
5 PB COLOR
6 GND
From / To 0 3 VIDEO(MAIN), CN205
CN2
1 AUTO/MAN/SLOW
2 COLOR ROT
3 SP
4 DRUM FF
5 SWD 5V
6 REC START
REC/PB 3.0 Vp-p
[redacted]
PB 0.38 Vp-p
[redacted]
REC 0.26 Vp-p
[redacted]
PB 0.3 Vp-p
REC/PB 5.0 Vp-p
[redacted]
REC 3.0 Vp-p
[redacted]
REC 1.3 Vp-p
[redacted]
PB 0.6 Vp-p
REC/PB 4.0 Vp-p

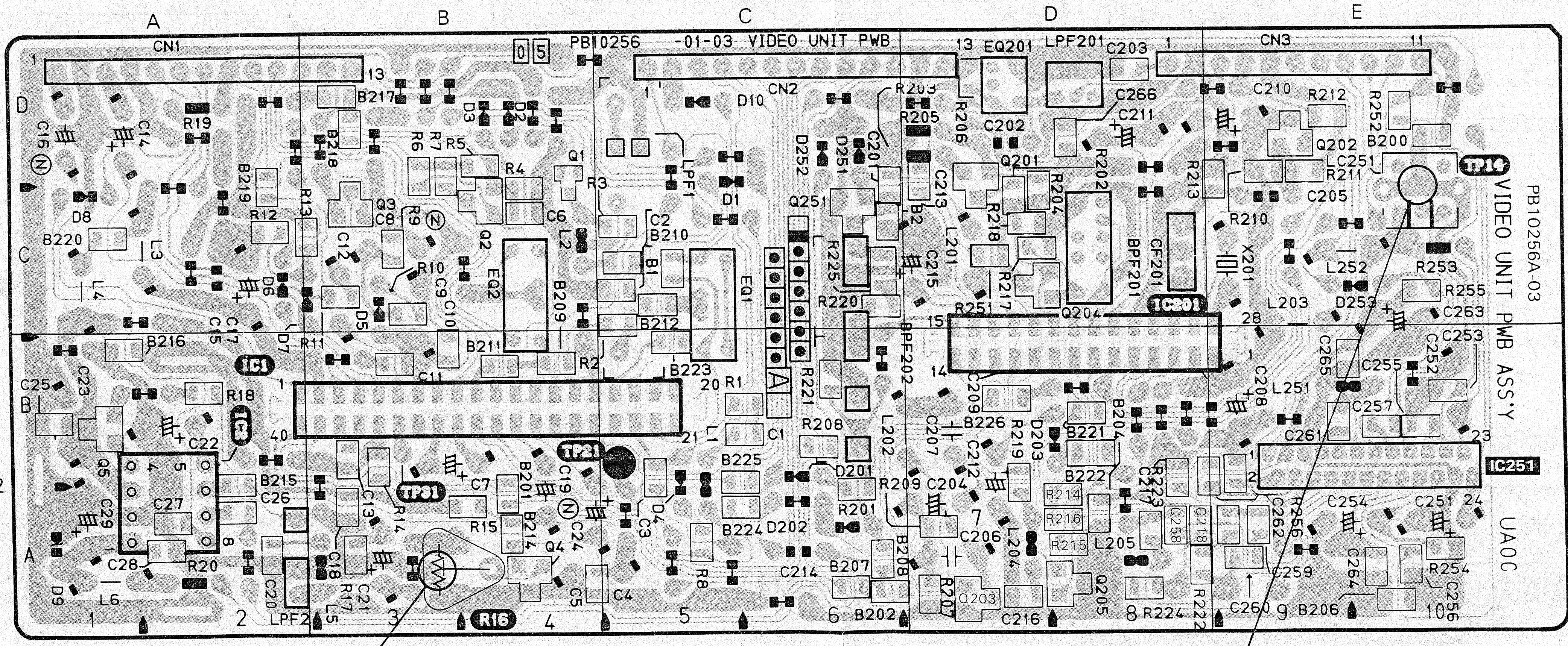
Video
Video


05 VIDEO UNIT
03 MAIN (VIDEO)
IC2 MSM6967RS
IC1 PB20166G-01
IC201 PB20227A
IC251 BA7106LS
Q4 2SA1037K
Q5 2SC2412K
Q1 DTA144EU
Q2 2SC2412K
D5 1SS292
Q3 DTC144EK
Q251 DTC124EK
Q201 2SC2412K
Q203 DTC124EK
Q202 2SC2412K
Q204 2SC2412K
Q205 2SA1037K
Q201 DTC124ES
Q202 DTC144WS
Q351 2SA933S(RS)
Q209 DTA114ES
Q206 2SC1740(RS)
Q207,Q208 2SA933S(RS)
Q204,Q205 2SC1740(RS)
Q203 2SA933S(RS)
Q210 2SA854S (QR)
1H DL
LPF 2
R16 NC BALANCE
SWD 5V
SWD 12V
PB 1.5Vp-p
PB 0.44Vp-p
REC 1.0Vp-p
REC 0.6 Vp-p
PB 0.22Vp-p
REC 0.3Vp-p
REC/PB 1.0Vp-p
REC/PB 5.0Vp-p
PB 0.48Vp-p
REC/PB 2.2Vp-p
PB 1.5Vp-p
PB 0.18Vp-p
REC 1.2Vp-p
PB 8Vp-p
PB 44mVp-p
REC 0.48Vp-p
REC 1.0Vp-p
PB 0.9Vp-p
REC 1.0Vp-p
PB 0.18Vp-p
PB 84mVp-p
REC 0.24Vp-p
PB 0.2Vp-p
PB 0.25Vp-p
REC 56mVp-p
DL201
LC251 SECAM DET
TP3
TP205
TP206
TP GND
CN2
CN202
COLOUR
YNR ON
AUX/TNR
COLOUR ROL
SP
PB FM
REC FM
NC
SWD 5V
SWD 12V
SECAM
GND
REC COL
CN1
CN201
VIDEO (TNR)
GND
VIDEO (AUX)
GND
VIDEO
VIDEO
SWD 5V
EE
V PULSE ON
VIDEO
V PULSE
SHARPNESS CTL
SYNC
CN3
CN203
PB COL
GND
NC
3fsc
GND
COLOUR
B/W
SWD 5V
NC
SECAM
(NC)
From/To 03 MAIN (SERVO)
V PULSE ON
DRUM FF
V PULSE
YNR PULSE
3 fsc
SYNC
PB COL
From/To 43 PRE/REC CN1
CN204
SYNC
GND
PB FM
REC FM COL
PB COL
GND
From/To 43 PRE/REC CN2
CN205
AUTO/MAN/SLOW SEL
COLOUR ROT
SP
DRUM FF
SWD 5V
REC START
VIDEO
SWD 5V
GND
From/To 03 FINE SLOW (MAIN)
SP
To 03 MAIN (AUDIO)
GND
PB
SWD 5V
SWD 12V
From/To 03 MAIN (REGULATOR)
CN701
TNR AUDIO
GND
VPT VIDEO
TNR VIDEO IN
GND
UNSW 12V
45V
From/To 08 TUNER CTL CN1 (Page)
AUX
TEXT
VPT VIDEO
EE
From/To 03 MAIN (MECHACON)
45V
UNSW 12V
PB 12V
SWD 12V
UNSW 12V
From 03 MAIN (REGULATOR)
RF CONV.
RF VIDEO
GND
RF AUDIO
SWD 12V
UNSW 12V
RF AUDIO
TNR AUDIO
From/To 03 MAIN (AUDIO)
VIDEO
P. MUTE
From/To 03 FINE SLOW (MAIN)
From 03 MAIN (MECHACON)
P. SHARPNESS
AUTO/MAN/SLOW SEL
REC START
REC
D209
R226 SP FREQ
PR1
V OUT
V IN
R220 SP REC COLOUR
K201
CF201
BPF201
BPF202
LPF201
CO301
CO201

Vor- und Aufnahmeverstärker
Pre- and record amplifier


PB10247-02
PRE/REC PWB
PRE/REC PWB
CN1
CN2
CN3
CN4
IC1
B51
C13
C34
C15
C14
C12
R19
R22
B53
R17
B37
B35
R14
R1
R20
R21
R15
L10
L1
D1
B54
R2
D2
Q3
C39
C1
C3
L3
C10
L2
L6
C4
C5
Q1
R16
C18
B21
C22
C27
C23
R29
C36
C16
C32
R31
R9
L5
R6
R4
C6
B22
C24
C28
C30
C31
B32
Q2
L7
R24
R18
R7
R8
C38
C8
L4
B33
C17
C19
C29
C41
D4
D3
L8
B36
R25
C40
R23
Q5
Q6
A
B
C
1 2 3 4 5 6

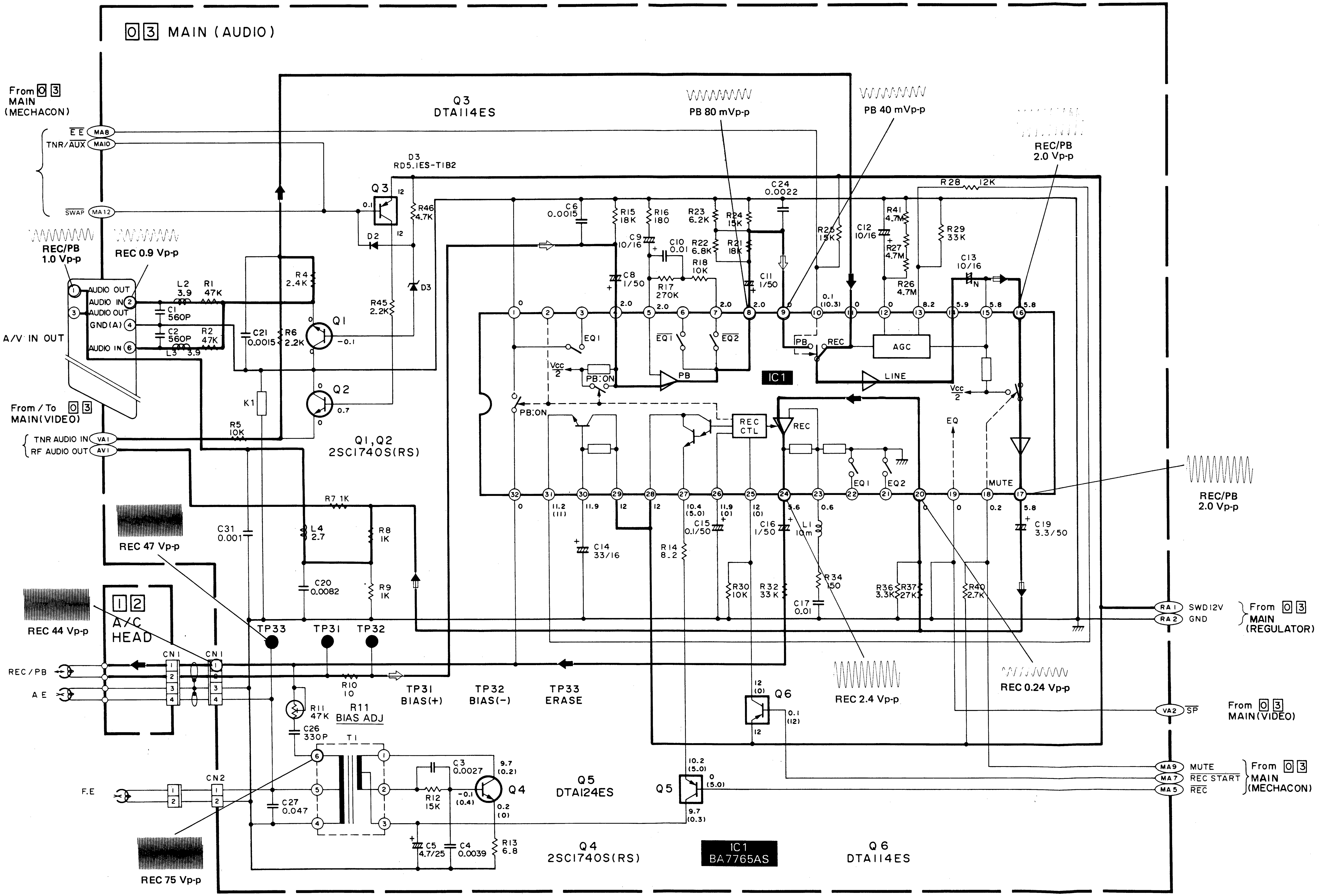
Leiterplatte Video
P.C.B. Video


A B C D E
1 2
PB10256 -01-03 VIDEO UNIT PWB
PB10256A-03
VIDEO UNIT PWB ASS'Y
UAOC
05
CN1
CN2
CN3
IC1
IC2
IC201
IC251
TP21
TP31
TP14
R16
EQ201
LPF201
C203
B217
D3
D2
R19
C16
C14
B218
B219
R6
R7
R5
R4
Q1
R3
LPF1
D1
D10
D252
D251
Q251
R205
R206
C202
Q201
R202
R204
C211
C266
C210
R212
R252
B200
Q202
LC251
R211
C205
R213
R210
X201
CF201
BPF201
L252
R253
D253
L203
R255
C263
C253
C252
C255
C265
L251
C257
C261
C208
Q204
R251
BPF202
C209
B226
R219
D203
B221
B204
B222
R214
R216
R215
L205
C258
C218
C262
R223
C217
C254
C251
C264
R254
C256
C259
C260
B206
R222
R224
Q205
Q203
C216
R207
B202
B207
B208
C206
L204
C204
R209
R201
D201
B224
D202
C214
R208
C1
B225
R1
R221
R220
R225
R218
R217
L201
C215
C213
B2
C201
B210
C2
B1
B212
B223
EQ1
B209
EQ2
C6
L2
Q2
R9
C8
Q3
C12
R13
R12
D8
B220
L3
L4
D6
C15
C17
D7
R11
D5
C9
C10
R10
B211
C11
R2
B216
C25
C23
R18
C22
Q5
C29
C27
B215
C26
C13
R14
C7
B201
B214
C19
C24
C3
D4
R15
Q4
R8
C28
R20
D9
L6
C20
LPF2
L5
C18
C21
R17
C5
C4
1 2 3 4 5 6 7 8 9 10

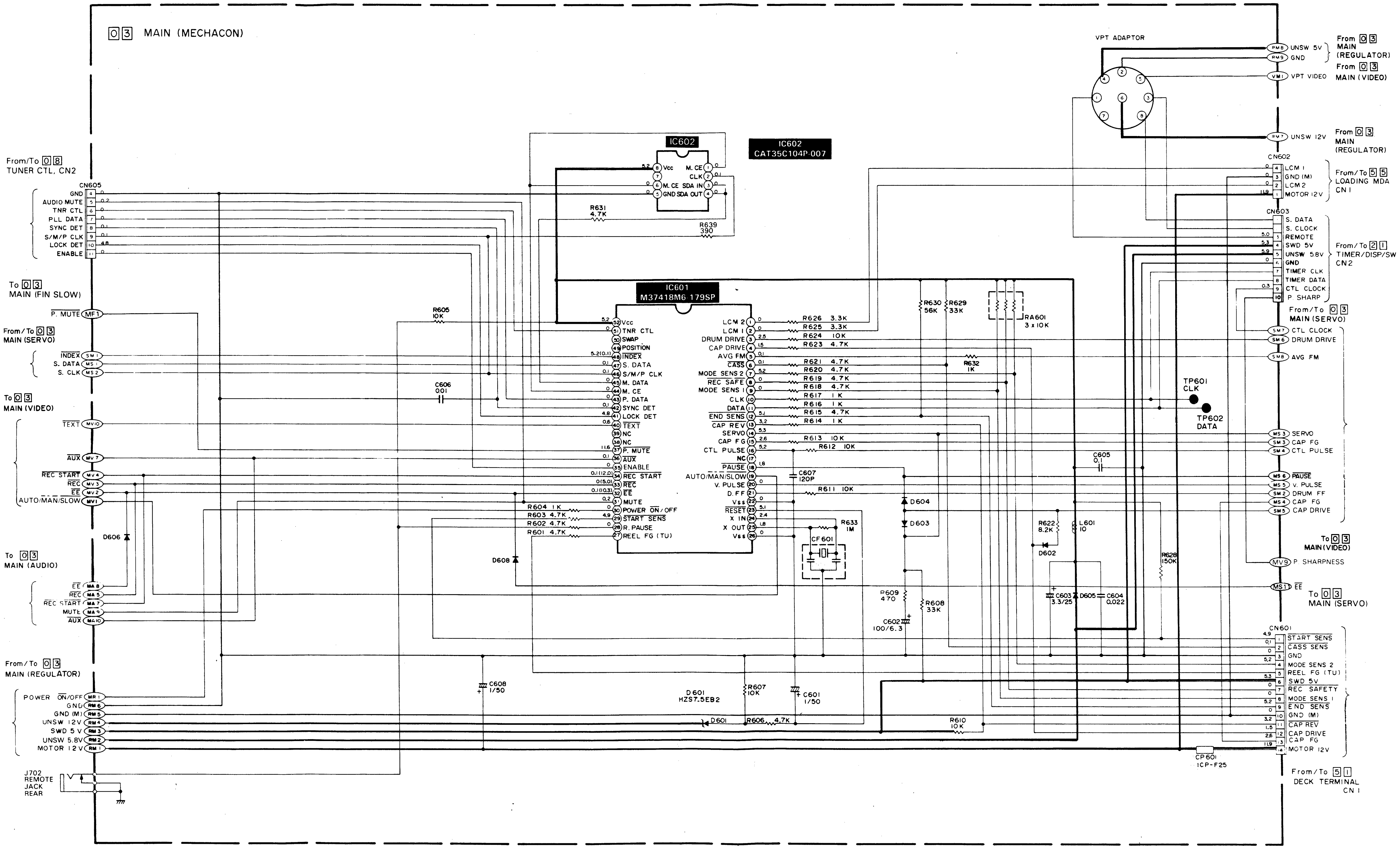
R16
NC BALANCE

LC251
SECAM DET

Audio
Audio

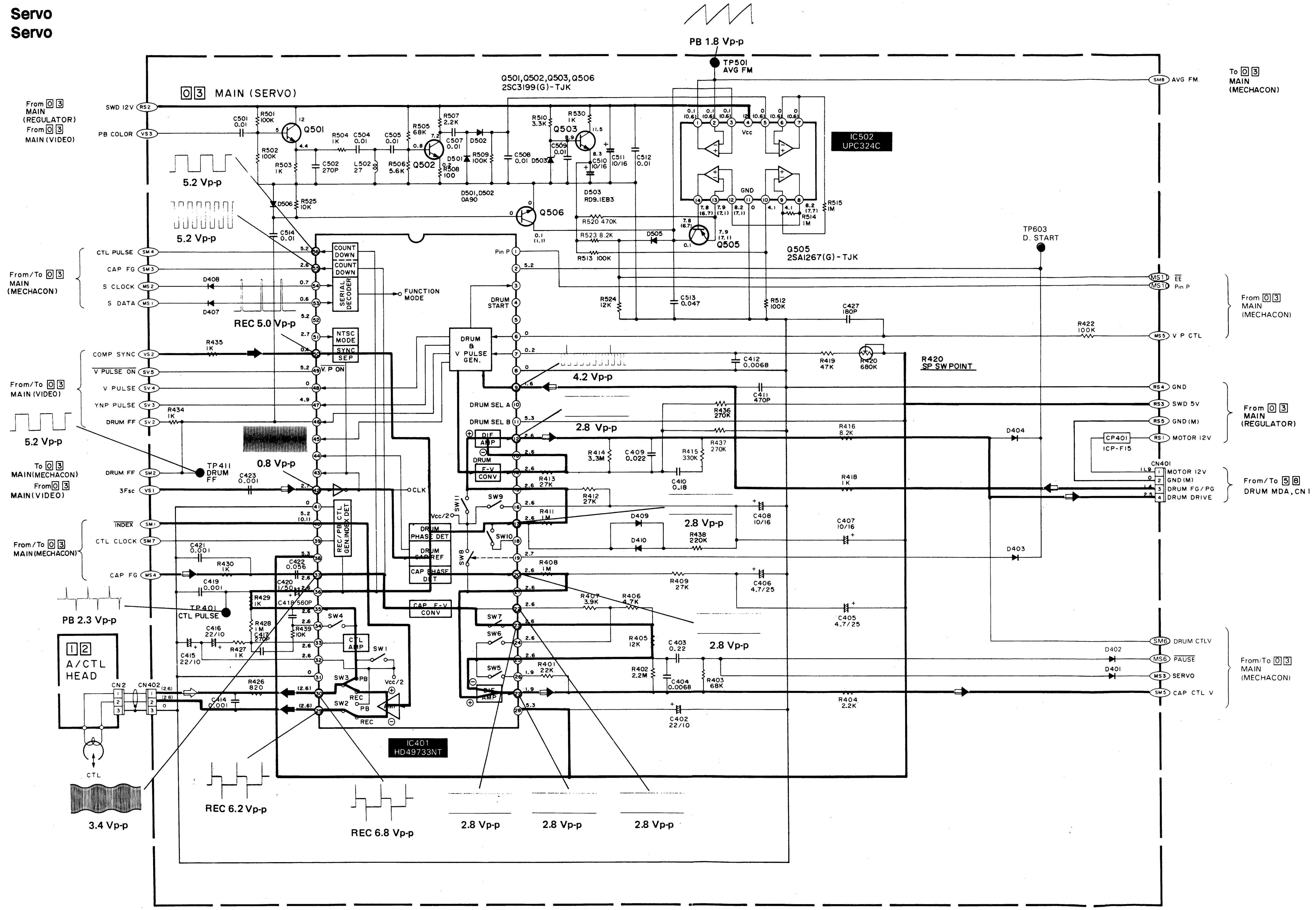

03 MAIN (AUDIO)
From 03 MAIN (MECHACON)
EE MA8
TNR/AUX MA10
SWAP MA12
REC/PB 1.0 Vp-p
REC 0.9 Vp-p
AUDIO OUT 1
AUDIO IN 2
AUDIO OUT 3
GND(A) 4
AUDIO IN 6
A/V IN OUT
L2 3.9
R1 47K
C1 560P
C2 560P
R2 47K
L3 3.9
C21 0.0015
R6 2.2K
R4 2.4K
Q1
Q2
Q1,Q2 2SC1740S(RS)
K1
R5 10K
From / To 03 MAIN(VIDEO)
TNR AUDIO IN VA1
RF AUDIO OUT AV1
Q3 DTA114ES
D3 RD5.1ES-T1B2
Q3
D2
D3
R46 4.7K
R45 2.2K
C6 0.0015
R15 18K
R16 180
C9 10/16
C10 0.01
R17 270K
R18 10K
C8 1/50
R23 6.2K
R22 6.8K
R24 15K
R21 18K
C24 0.0022
C11 1/50
R25 15K
C12 10/16
R41 4.7M
R27 4.7M
R26 4.7M
R28 12K
R29 33K
C13 10/16
PB 80 mVp-p
PB 40 mVp-p
REC/PB 2.0 Vp-p
EQ1
EQ1
EQ2
Vcc/2
PB:ON
PB
PB
REC
AGC
LINE
IC1
Vcc/2
PB:ON
REC CTL
REC
EQ
EQ1
EQ2
MUTE
R7 1K
L4 2.7
R8 1K
C31 0.001
C20 0.0082
R9 1K
REC 47 Vp-p
REC 44 Vp-p
12 A/C HEAD
CN1
CN1
REC/PB
A E
TP33
TP31
TP32
R10 10
TP31 BIAS(+)
TP32 BIAS(-)
TP33 ERASE
C14 33/16
R14 8.2
C15 0.1/50
C16 1/50
L1 10m
R34 150
C17 0.01
R30 10K
R32 33K
R36 3.3K
R37 27K
R40 2.7K
C19 3.3/50
REC/PB 2.0 Vp-p
REC 2.4 Vp-p
REC 0.24 Vp-p
Q6
SWD12V RA1
GND RA2
From 03 MAIN (REGULATOR)
SP VA2
From 03 MAIN(VIDEO)
MUTE MA9
REC START MA7
REC MA5
From 03 MAIN (MECHACON)
R11 47K
R11 BIAS ADJ
C26 330P
T1
C3 0.0027
R12 15K
Q4
C5 4.7/25
C4 0.0039
R13 6.8
C27 0.047
CN2
F.E
REC 75 Vp-p
Q5 DTA124ES
Q5
Q4 2SC1740S(RS)
IC1 BA7765AS
Q6 DTA114ES

Steuerlogik
Mechacon

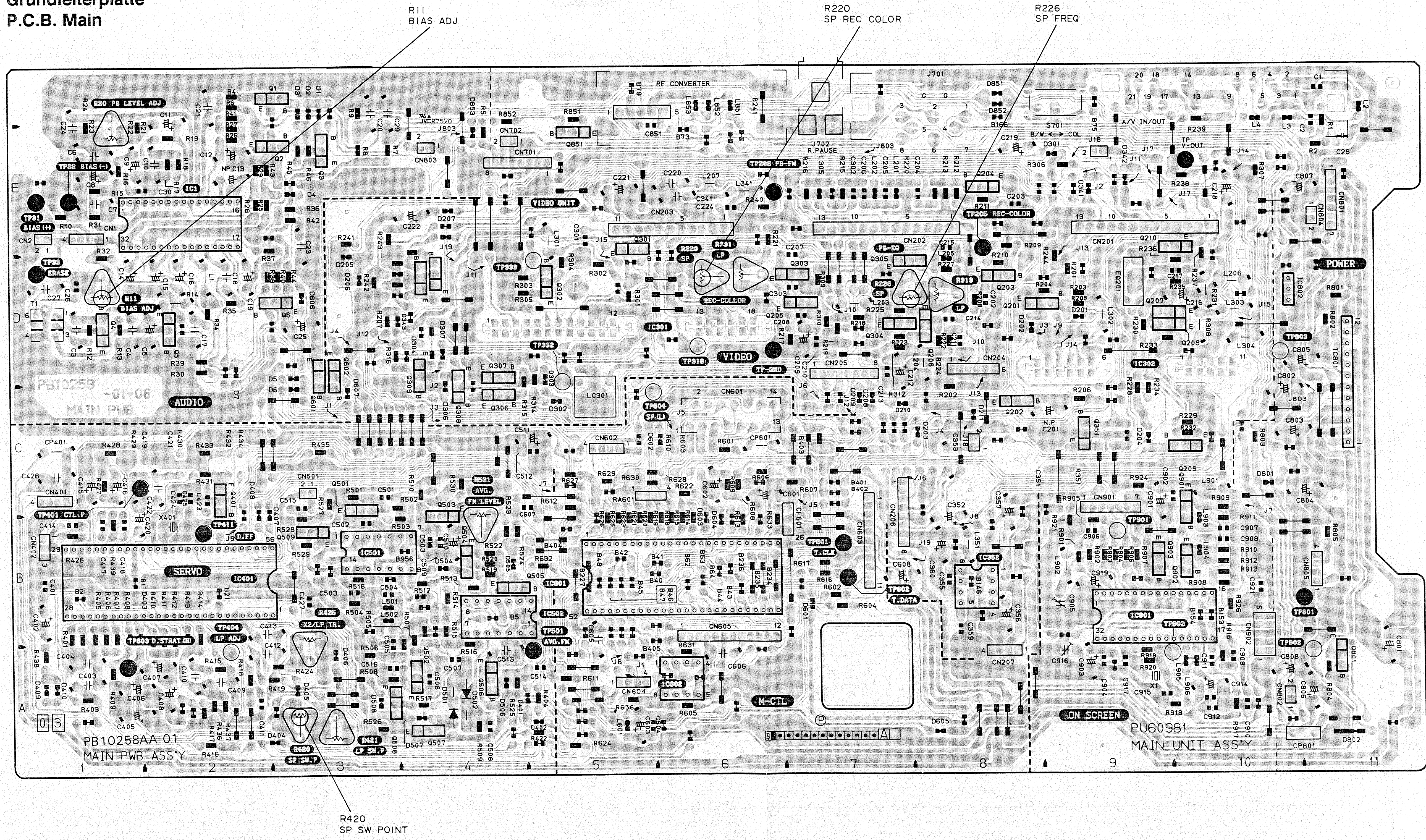


03 MAIN (MECHACON)
From/To 08 TUNER CTL, CN2
CN605
GND
AUDIO MUTE
TNR CTL
PLL DATA
SYNC DET
S/M/P CLK
LOCK DET
ENABLE
To 03 MAIN (FIN SLOW)
P. MUTE
MF1
From/To 03 MAIN (SERVO)
INDEX
S. DATA
S. CLK
To 03 MAIN (VIDEO)
TEXT
AUX
REC START
REC
EE
AUTO/MAN/SLOW
D606
To 03 MAIN (AUDIO)
EE
REC
REC START
MUTE
AUX
From/To 03 MAIN (REGULATOR)
POWER ON/OFF
GND
GND (M)
UNSW 12V
SWD 5V
UNSW 5.8V
MOTOR 12V
J702 REMOTE JACK REAR
IC602
CAT35C104P-007
Vcc
M. CE
CLK
M. CE SDA IN
GND SDA OUT
R631 4.7K
R639 390
IC601
M37418M6 179SP
Vcc
TNR CTL
SWAP
POSITION
INDEX
S. DATA
S/M/P CLK
M. DATA
M. CE
P. DATA
SYNC DET
LOCK DET
TEXT
NC
NC
P. MUTE
AUX
ENABLE
REC START
REC
EE
MUTE
POWER ON/OFF
START SENS
R. PAUSE
REEL FG (TU)
LCM 2
LCM 1
DRUM DRIVE
CAP DRIVE
AVG FM
CASS
MODE SENS 2
REC SAFE
MODE SENS 1
CLK
DATA
END SENS
CAP REV
SERVO
CAP FG
CTL PULSE
NC
PAUSE
AUTO/MAN/SLOW
V. PULSE
D. FF
Vss
RESET
X IN
X OUT
Vss
R605 10K
C606 .001
R604 1K
R603 4.7K
R602 4.7K
R601 4.7K
D608
R626 3.3K
R625 3.3K
R624 10K
R623 4.7K
R621 4.7K
R620 4.7K
R619 4.7K
R618 4.7K
R617 1K
R616 1K
R615 4.7K
R614 1K
R613 10K
R612 10K
R611 10K
C607 120P
R633 1M
CF601
R630 56K
R629 33K
R632 1K
RA601 3 x 10K
D604
D603
P609 470
R608 33K
C602 100/6.3
R622 8.2K
L601 10
D602
C603 3.3/25
D605
C604 0.022
R628 150K
C605 0.1
TP601 CLK
TP602 DATA
C608 1/50
D601 HZS7.5EB2
R607 10K
C601 1/50
R606 4.7K
R610 10K
CP601 ICP-F25
VPT ADAPTOR
UNSW 5V
GND
From 03 MAIN (REGULATOR)
VPT VIDEO
From 03 MAIN (VIDEO)
UNSW 12V
From 03 MAIN (REGULATOR)
CN602
LCM 1
GND (M)
LCM 2
MOTOR 12V
From/To 55 LOADING MDA CN1
CN603
S. DATA
S. CLOCK
REMOTE
SWD 5V
UNSW 5.8V
GND
TIMER CLK
TIMER DATA
CTL CLOCK
P. SHARP
From/To 21 TIMER/DISP/SW CN2
From/To 03 MAIN (SERVO)
CTL CLOCK
DRUM DRIVE
AVG FM
SERVO
CAP FG
CTL PULSE
PAUSE
V. PULSE
DRUM FF
CAP FG
CAP DRIVE
To 03 MAIN (VIDEO)
P. SHARPNESS
EE
To 03 MAIN (SERVO)
CN601
START SENS
CASS SENS
GND
MODE SENS 2
REEL FG (TU)
SWD 5V
REC SAFETY
MODE SENS 1
END SENS
GND (M)
CAP REV
CAP DRIVE
CAP FG
MOTOR 12V
From/To 51 DECK TERMINAL CN1

Servo
Servo


PB 1.8 Vp-p
TP501 AVG FM
03 MAIN (SERVO)
Q501,Q502,Q503,Q506 2SC3199(G)-TJK
IC502 UPC324C
Q505 2SA1267(G)-TJK
IC401 HD49733NT
From 03 MAIN (REGULATOR)
From 03 MAIN (VIDEO)
SWD 12V
PB COLOR
To 03 MAIN (MECHACON)
AVG FM
5.2 Vp-p
5.2 Vp-p
From/To 03 MAIN (MECHACON)
CTL PULSE
CAP FG
S CLOCK
S DATA
COUNT DOWN
SERIAL DECODER
FUNCTION MODE
REC 5.0 Vp-p
NTSC MODE
SYNC SEP
V.P ON
From/To 03 MAIN (VIDEO)
COMP SYNC
V PULSE ON
V PULSE
YNP PULSE
DRUM FF
5.2 Vp-p
DRUM & V PULSE GEN.
DRUM START
Pin P
4.2 Vp-p
DRUM SEL A
DRUM SEL B
2.8 Vp-p
DIF AMP
F-V CONV
0.8 Vp-p
To 03 MAIN(MECHACON)
From 03 MAIN(VIDEO)
TP411 DRUM FF
3Fsc
CLK
REC/PB CTL GEN.INDEX DET
DRUM PHASE DET
DRUM CAP REF
CAP PHASE DET
CAP F-V CONV
CTL AMP
From/To 03 MAIN(MECHACON)
INDEX
CTL CLOCK
CAP FG
PB 2.3 Vp-p
TP401 CTL PULSE
12 A/CTL HEAD
CN2
CN402
CTL
3.4 Vp-p
REC 6.2 Vp-p
REC 6.8 Vp-p
2.8 Vp-p
2.8 Vp-p
2.8 Vp-p
2.8 Vp-p
2.8 Vp-p
TP603 D. START
From 03 MAIN (MECHACON)
EE
Pin P
V P CTL
R420 SP SW POINT
From 03 MAIN (REGULATOR)
GND
SWD 5V
GND (M)
MOTOR 12V
CP401 ICP-F15
CN401
From/To 58 DRUM MDA, CN1
MOTOR 12V
GND (M)
DRUM FG/PG
DRUM DRIVE
From/To 03 MAIN (MECHACON)
DRUM CTLV
PAUSE
SERVO
CAP CTL V
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW9
SW10
SW11
Vcc/2
REC
PB

Grundleiterplatte
P.C.B. Main


R11
BIAS ADJ

R220
SP REC COLOR

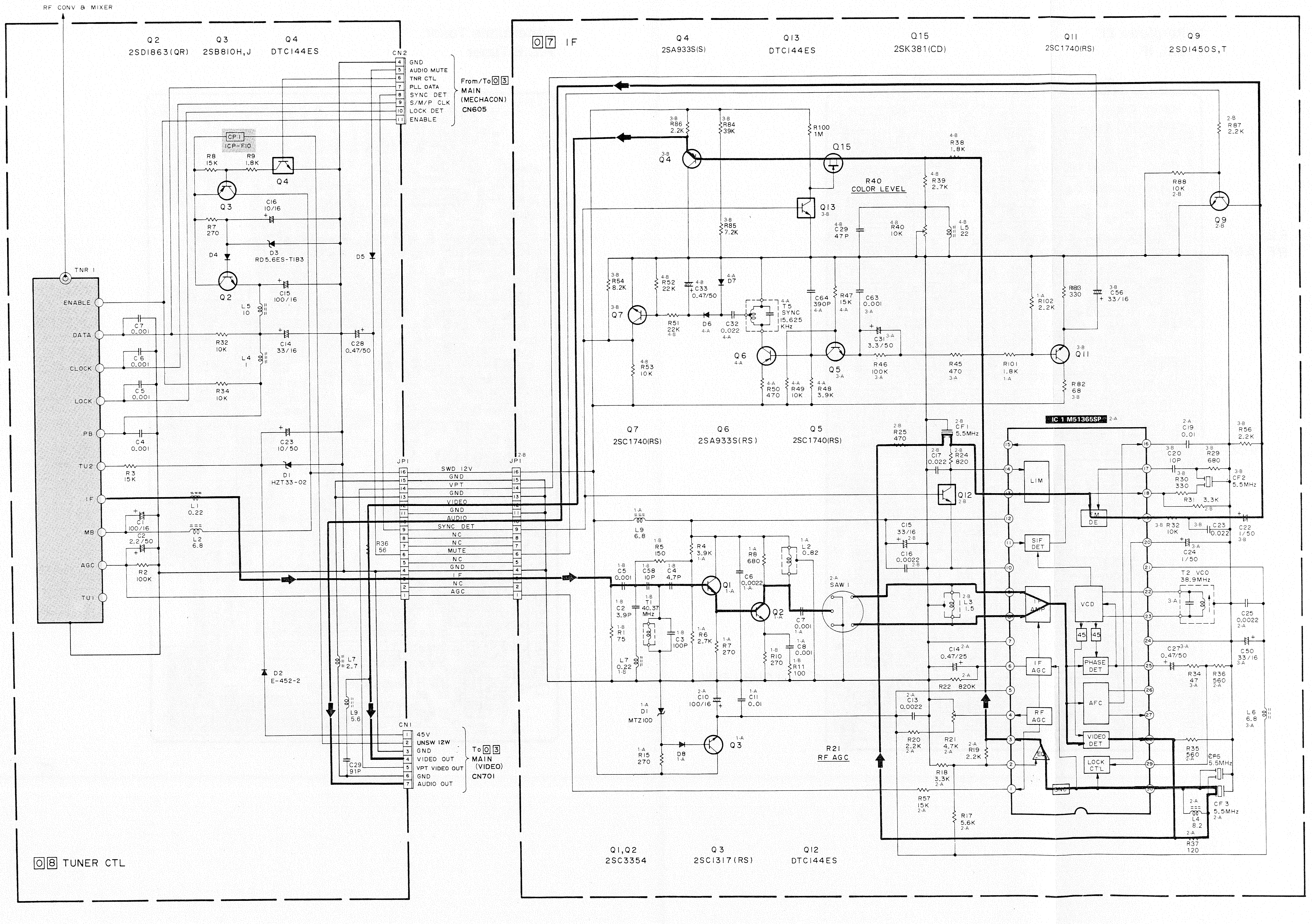
R226
SP FREQ

R420
SP SW POINT

RF CONVERTER
VIDEO UNIT
AUDIO
VIDEO
SERVO
POWER
ON SCREEN
M-CTL
R20 PB LEVEL ADJ
TP32 BIAS (-)
TP31 BIAS (+)
TP33 ERASE
TP206 PB-FM
TP205 REC-COLOR
REC-COLLOR
A/V IN/OUT
B/W ↔ COL
PB10258 -01-06 MAIN PWB
PB10258AA-01
MAIN PWB ASS'Y
PU60981
MAIN UNIT ASS'Y
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E

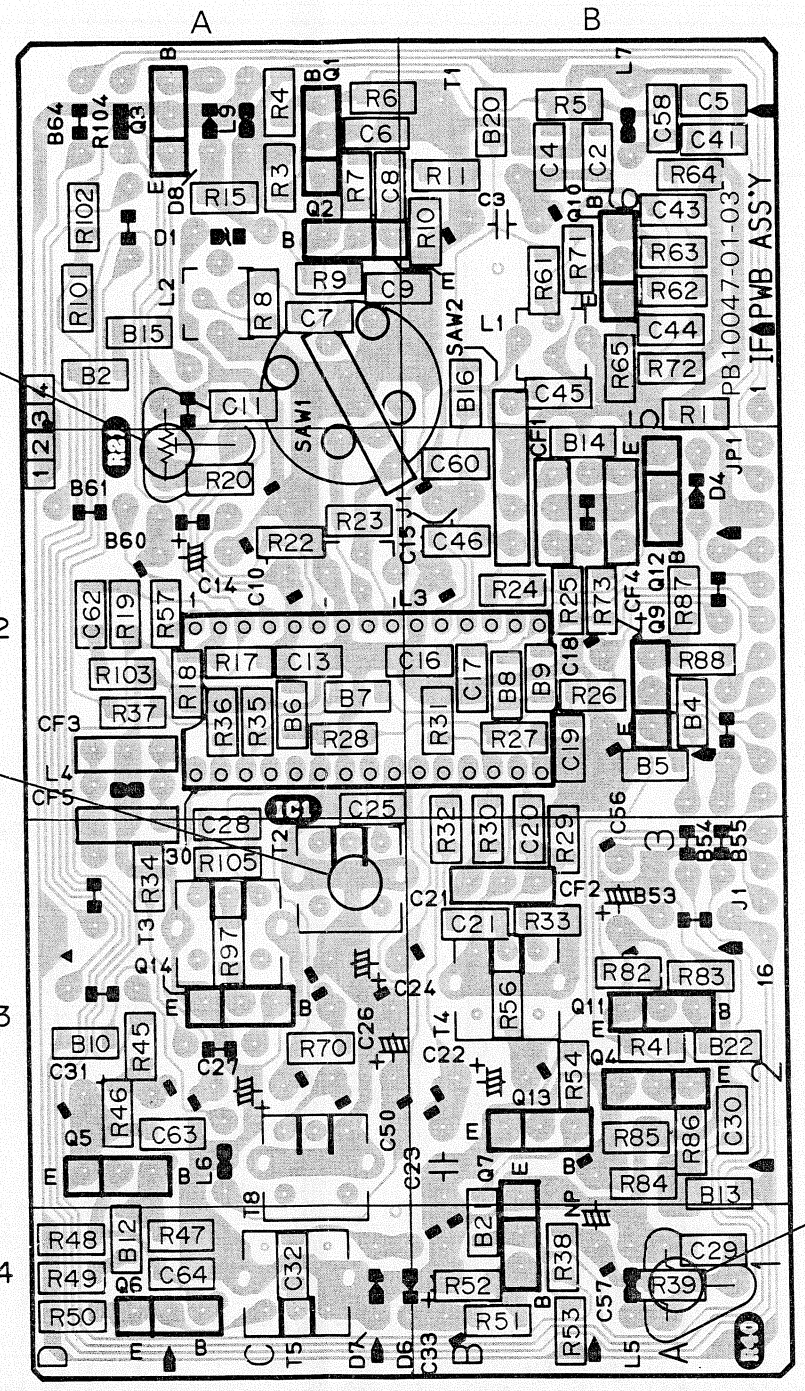
S Tuner

S Tuner



RF CONV & MIXER
Q2 2SD1863(QR)
Q3 2SB810H,J
Q4 DTC144ES
CN2
GND
AUDIO MUTE
TNR CTL
PLL DATA
SYNC DET
S/M/P CLK
LOCK DET
ENABLE
From/To 03 MAIN (MECHACON) CN605
CP1 ICP-F10
TNR1
ENABLE
DATA
CLOCK
LOCK
PB
TU2
IF
MB
AGC
TU1
D3 RD5.6ES-T1B3
D1 HZT33-02
D2 E-452-2
JP1
SWD 12V
GND
VPT
GND
VIDEO
GND
AUDIO
SYNC DET
NC
NC
MUTE
NC
GND
IF
NC
AGC
CN1
45V
UNSW 12W
GND
VIDEO OUT
VPT VIDEO OUT
GND
AUDIO OUT
To 03 MAIN (VIDEO) CN701
08 TUNER CTL
07 IF
Q4 2SA933S(S)
Q13 DTC144ES
Q15 2SK381(CD)
Q11 2SC1740(RS)
Q9 2SD1450S,T
R40 COLOR LEVEL
T5 SYNC 15.625 KHz
Q7 2SC1740(RS)
Q6 2SA933S(RS)
Q5 2SC1740(RS)
IC 1 M51365SP
LIM
FM DET
SIF DET
IF AMP
VCO
PHASE DET
AFC
IF AGC
RF AGC
VIDEO DET
LOCK CTL
SAW 1
T2 VCO 38.9MHz
CF1 5.5MHz
CF2 5.5MHz
CF3 5.5MHz
R21 RF AGC
Q1,Q2 2SC3354
Q3 2SC1317(RS)
Q12 DTC144ES

Leiterplatte ZF
P.C.B. IF

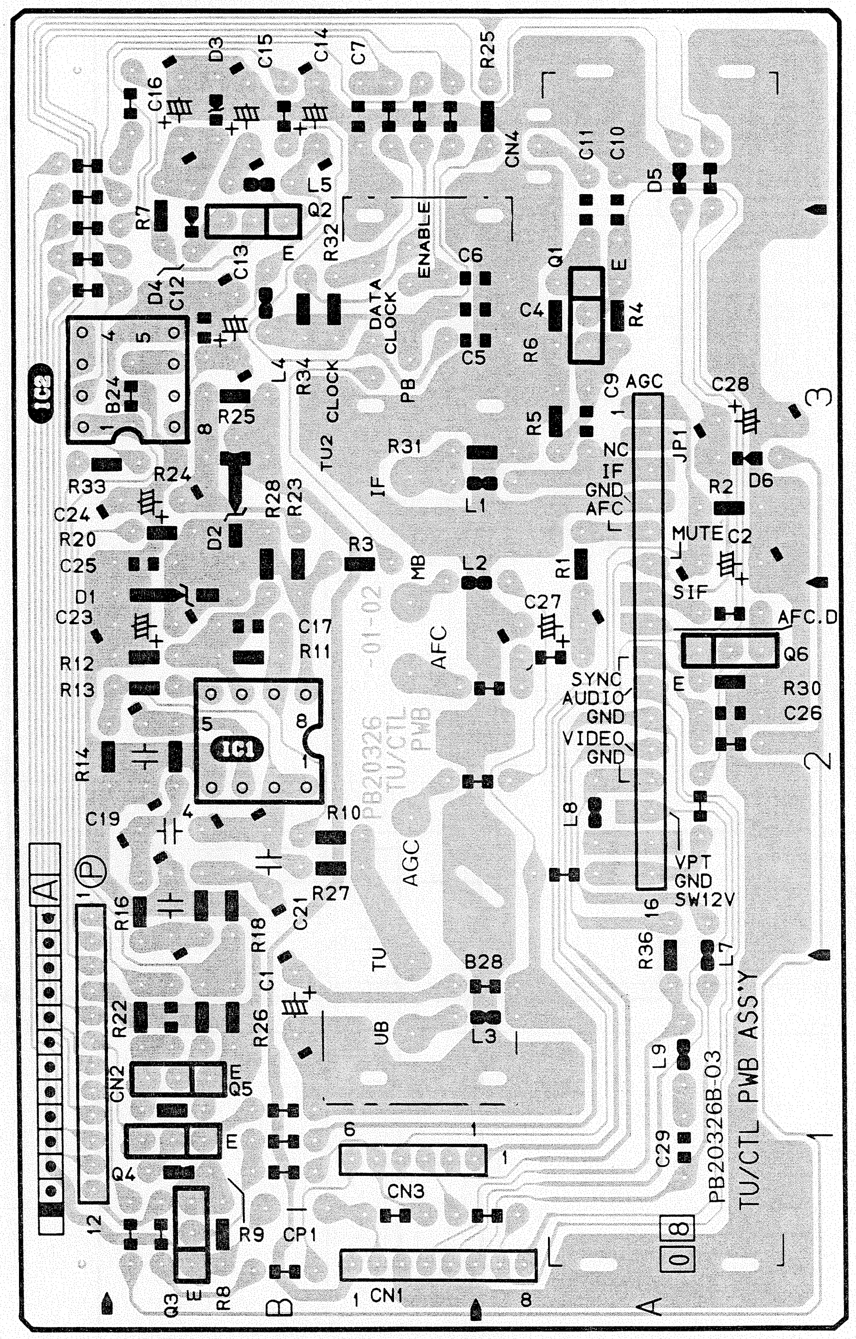

A
B
1
2
3
4
IC1
SAW1
SAW2
PB10047-01-03
IF PWB ASS'Y

R21
RF AGC

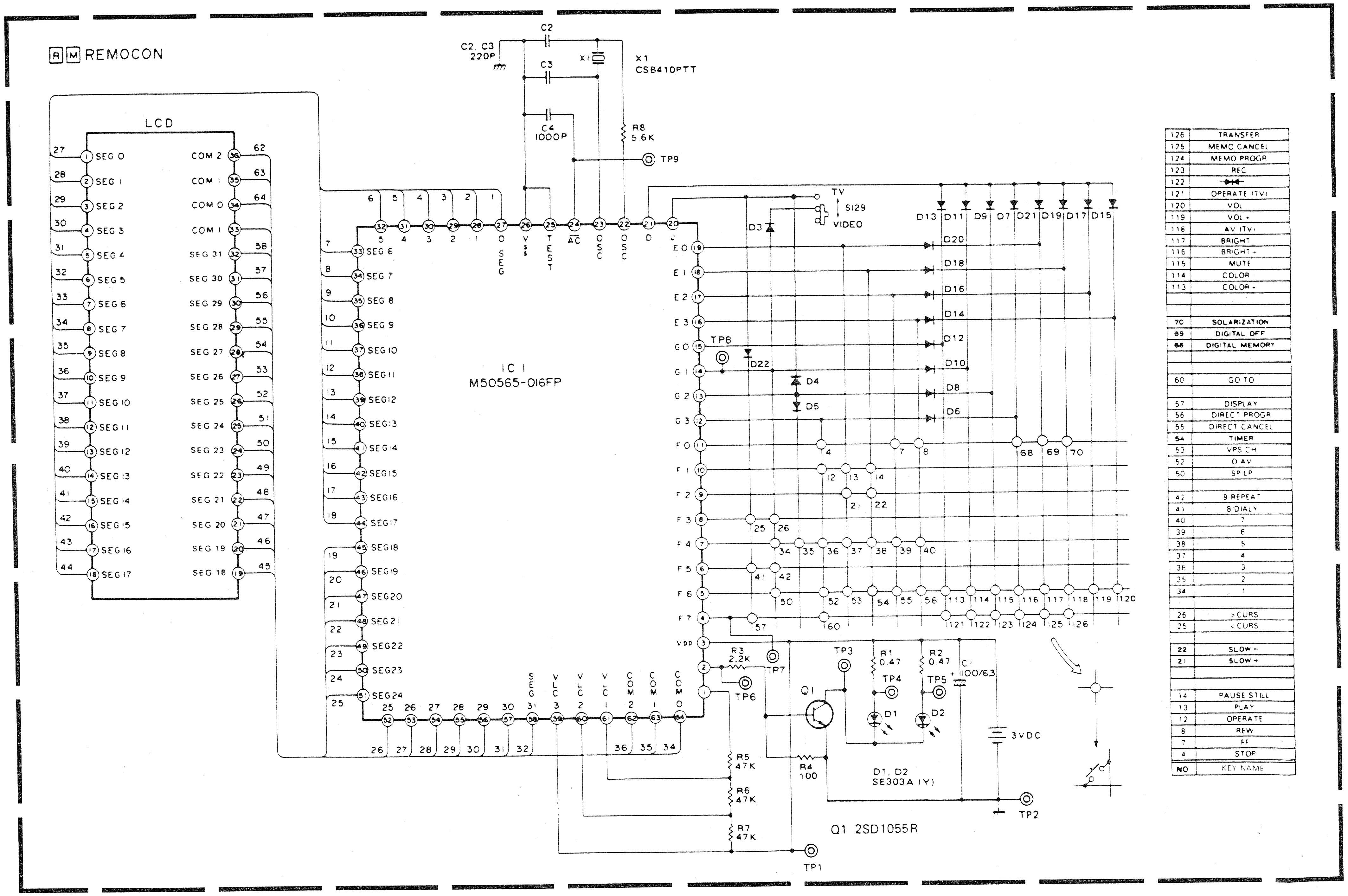
T2
VCO

R40
COLOUR LEVEL

Leiterplatte Tuner
P.C.B.Tuner

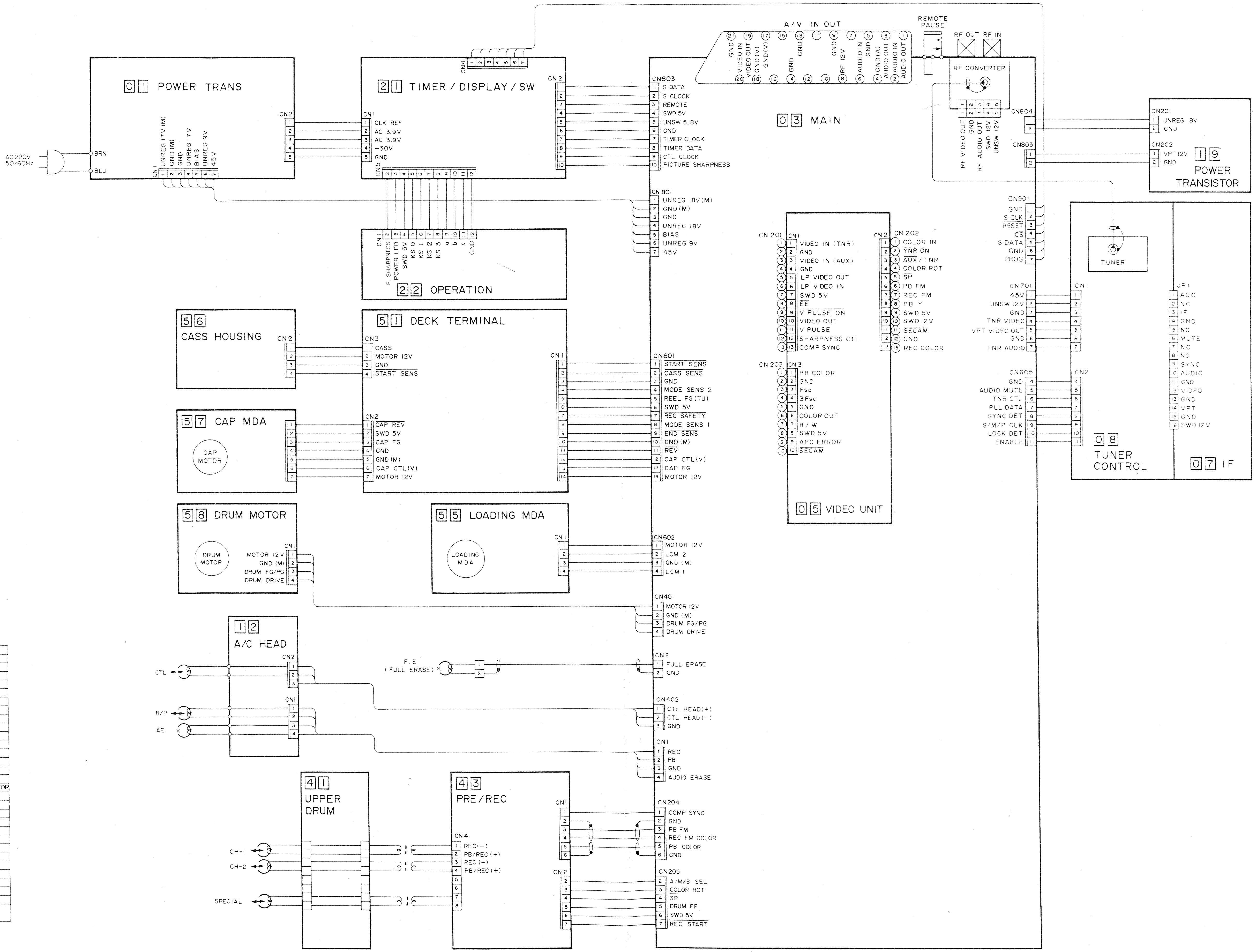

IC1
IC2
CN1
CN2
CN3
CN4
PB20326
TU/CTL
PWB
PB20326B-03
TU/CTL PWB ASS'Y

Fernbedienung
Remote control


RM REMOCON
LCD
IC 1
M50565-016FP
C2, C3
220P
C2
C3
C4
1000P
X1
CSB410PTT
R8
5.6K
TP9
TV
S129
VIDEO
D3
D22
D4
D5
TP8
TP7
TP6
TP3
TP4
TP5
R3
2.2K
R1
0.47
R2
0.47
C1
100/63
Q1
D1
D2
3VDC
R4
100
R5
47K
R6
47K
R7
47K
D1, D2
SE303A (Y)
Q1 2SD1055R
TP2
TP1

NO	KEY NAME
126	TRANSFER
125	MEMO CANCEL
124	MEMO PROGR
123	REC
122	▶◀
121	OPERATE (TV)
120	VOL
119	VOL +
118	AV (TV)
117	BRIGHT
116	BRIGHT +
115	MUTE
114	COLOR
113	COLOR +
70	SOLARIZATION
69	DIGITAL OFF
68	DIGITAL MEMORY
60	GO TO
57	DISPLAY
56	DIRECT PROGR
55	DIRECT CANCEL
54	TIMER
53	VPS CH
52	0 AV
50	SP/LP
42	9 REPEAT
41	8 DIALY
40	7
39	6
38	5
37	4
36	3
35	2
34	1
26	>CURS
25	<CURS
22	SLOW −
21	SLOW +
14	PAUSE STILL
13	PLAY
12	OPERATE
8	REW
7	FF
4	STOP

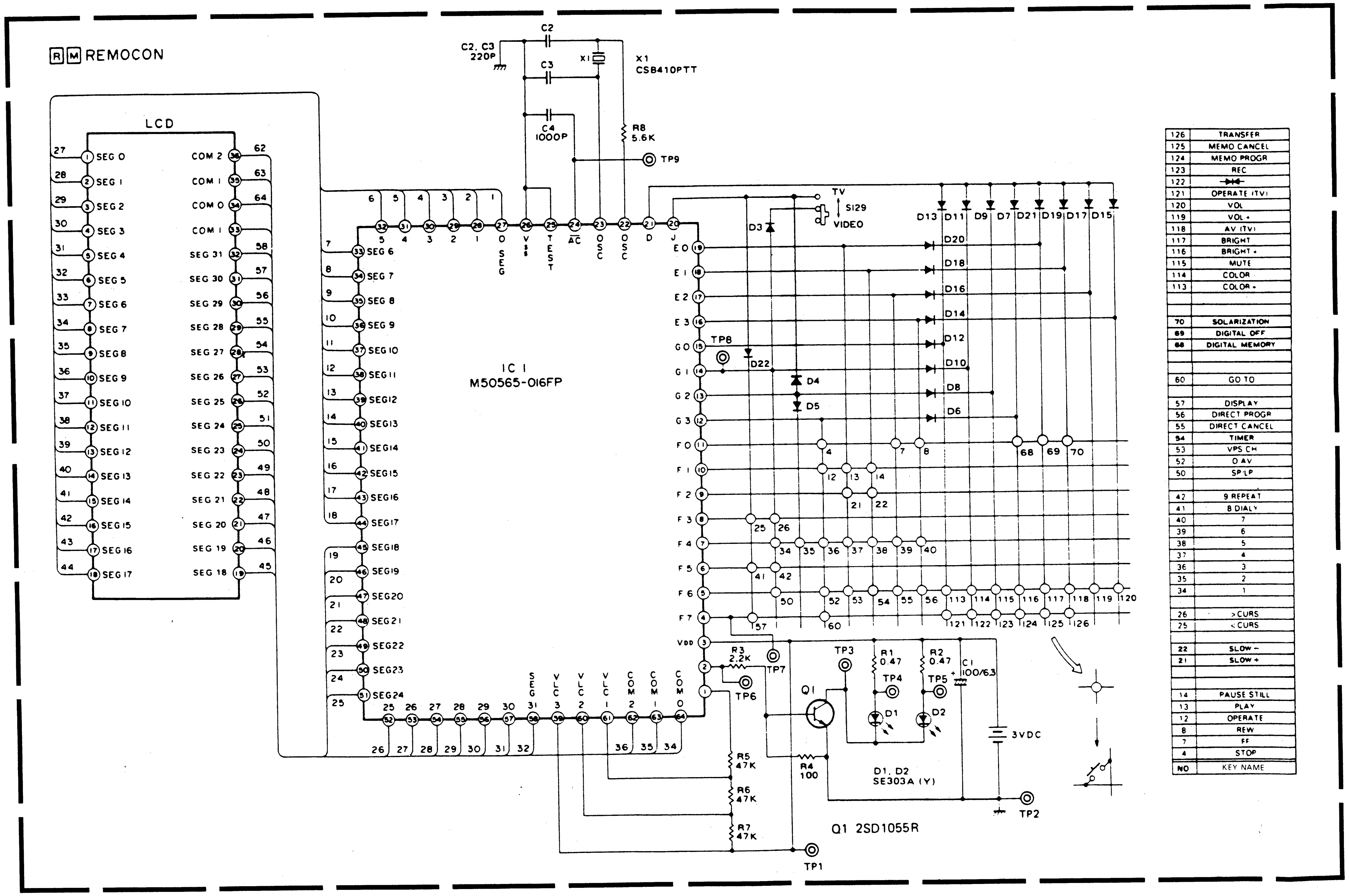
Gesamtverdrahtungsplan
Overall wiring diagram



AC 220V 50/60Hz
BRN
BLU
01 POWER TRANS
CN1
1 UNREG 17V (M)
2 GND (M)
3 GND
4 UNREG 17V
5 BIAS
6 UNREG 9V
7 45V
CN2
21 TIMER / DISPLAY / SW
CN1
1 CLK REF
2 AC 3.9V
3 AC 3.9V
4 -30V
5 GND
CN4
CN5
CN2
22 OPERATION
CN1
2 P. SHARPNESS
3 POWER LED
4 SWD 5V
5 KS 0
6 KS 1
7 KS 2
8 KS 3
9 a
10 b
11 c
12 GND
56 CASS HOUSING
CN2
51 DECK TERMINAL
CN3
1 CASS
2 MOTOR 12V
3 GND
4 START SENS
CN2
1 CAP REV
2 SWD 5V
3 CAP FG
4 GND
5 GND (M)
6 CAP CTL (V)
7 MOTOR 12V
CN1
57 CAP MDA
CAP MOTOR
58 DRUM MOTOR
DRUM MOTOR
CN1
MOTOR 12V
GND (M)
DRUM FG/PG
DRUM DRIVE
55 LOADING MDA
LOADING MDA
CN1
12 A/C HEAD
CN2
CN1
CTL
R/P
AE
F.E (FULL ERASE)
41 UPPER DRUM
CH-1
CH-2
SPECIAL
43 PRE/REC
CN4
1 REC(−)
2 PB/REC(+)
3 REC (−)
4 PB/REC(+)
CN1
CN2
A/V IN OUT
21 GND
19 VIDEO IN
VIDEO OUT
17 GND(V)
GND(V)
15
13 GND
11
9 GND
7 RF 12V
5 AUDIO IN
GND
3 GND(A)
AUDIO OUT
1 AUDIO IN
AUDIO OUT
20 18 16 14 GND 12 10 8 6 4 2
REMOTE PAUSE
RF OUT
RF IN
RF CONVERTER
1 RF VIDEO OUT
2 GND
3 RF AUDIO OUT
4 SWD 12V
5 UNSW 12V
03 MAIN
CN603
1 S DATA
2 S CLOCK
3 REMOTE
4 SWD 5V
5 UNSW 5.8V
6 GND
7 TIMER CLOCK
8 TIMER DATA
9 CTL CLOCK
10 PICTURE SHARPNESS
CN801
1 UNREG 18V (M)
2 GND (M)
3 GND
4 UNREG 18V
5 BIAS
6 UNREG 9V
7 45V
CN601
1 START SENS
2 CASS SENS
3 GND
4 MODE SENS 2
5 REEL FG (TU)
6 SWD 5V
7 REC SAFETY
8 MODE SENS 1
9 END SENS
10 GND (M)
11 REV
12 CAP CTL (V)
13 CAP FG
14 MOTOR 12V
CN602
1 MOTOR 12V
2 LCM 2
3 GND (M)
4 LCM 1
CN401
1 MOTOR 12V
2 GND (M)
3 DRUM FG/PG
4 DRUM DRIVE
CN2
1 FULL ERASE
2 GND
CN402
1 CTL HEAD(+)
2 CTL HEAD(−)
3 GND
CN1
1 REC
2 PB
3 GND
4 AUDIO ERASE
CN204
1 COMP SYNC
2 GND
3 PB FM
4 REC FM COLOR
5 PB COLOR
6 GND
CN205
2 A/M/S SEL
3 COLOR ROT
4 SP
5 DRUM FF
6 SWD 5V
7 REC START
CN804
CN803
CN901
1 GND
2 S-CLK
3 RESET
4 CS
5 S-DATA
6 GND
7 PROG
CN701
1 45V
2 UNSW 12V
3 GND
4 TNR VIDEO
5 VPT VIDEO OUT
6 GND
7 TNR AUDIO
CN605
4 GND
5 AUDIO MUTE
6 TNR CTL
7 PLL DATA
8 SYNC DET
9 S/M/P CLK
10 LOCK DET
11 ENABLE
CN201
1 UNREG 18V
2 GND
CN202
1 VPT 12V
2 GND
19 POWER TRANSISTOR
05 VIDEO UNIT
CN201 CN1
1 VIDEO IN (TNR)
2 GND
3 VIDEO IN (AUX)
4 GND
5 LP VIDEO OUT
6 LP VIDEO IN
7 SWD 5V
8 EE
9 V PULSE ON
10 VIDEO OUT
11 V PULSE
12 SHARPNESS CTL
13 COMP SYNC
CN2 CN202
1 COLOR IN
2 YNR ON
3 AUX / TNR
4 COLOR ROT
5 SP
6 PB FM
7 REC FM
8 PB Y
9 SWD 5V
10 SWD 12V
11 SECAM
12 GND
13 REC COLOR
CN203 CN3
1 PB COLOR
2 GND
3 Fsc
4 3Fsc
5 GND
6 COLOR OUT
7 B / W
8 SWD 5V
9 APC ERROR
10 SECAM
TUNER
CN1
CN2
08 TUNER CONTROL
JP1
1 AGC
2 NC
3 IF
4 GND
5 NC
6 MUTE
7 NC
8 NC
9 SYNC
10 AUDIO
11 GND
12 VIDEO
13 GND
14 VPT
15 GND
16 SWD 12V
07 IF

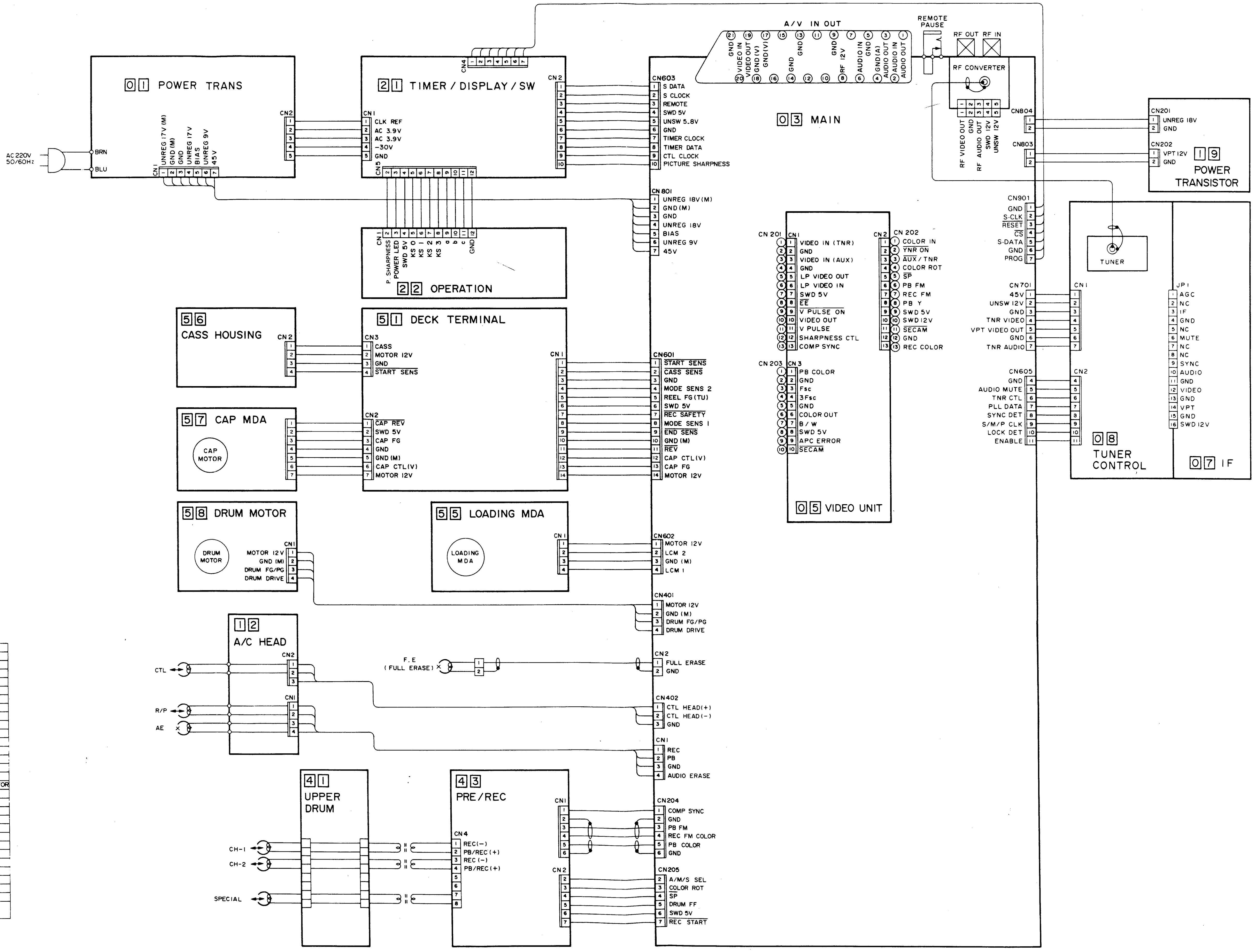
NO	NAME
58	DRUM MOTOR
57	CAP MDA
56	CASS HOUSING
55	LOADING MDA
54	
53	
52	
51	DECK TERMINAL
43	PRE/REC AMP
42	
41	UPPER DRUM
22	OPERATION
21	TIMER/DISP/SW
19	POWER TRANSISTOR
17	ON SCREEN
12	A/C HEAD
08	TUNER CTL
07	IF
06	
05	VIDEO UNIT
04	
03	MAIN
02	
01	POWER TRANS

Fernbedienung
Remote control


RM REMOCON
LCD
IC 1
M50565-016FP
C2, C3
220P
C2
C3
X1
X1
CSB410PTT
C4
1000P
R8
5.6K
TP9
TV
S129
VIDEO
D3
D13
D11
D9
D7
D21
D19
D17
D15
D20
D18
D16
D14
D12
D10
D8
D6
TP8
D22
D4
D5
R3
2.2K
TP7
TP6
TP3
R1
0.47
R2
0.47
C1
100/63
TP4
TP5
Q1
D1
D2
3VDC
R4
100
D1, D2
SE303A (Y)
R5
47K
R6
47K
R7
47K
TP1
TP2
Q1 2SD1055R
SEG 0
SEG 1
COM 2
COM 1
COM 0
E 0
E 1
E 2
E 3
G 0
G 1
G 2
G 3
F 0
F 1
F 2
F 3
F 4
F 5
F 6
F 7
VDD

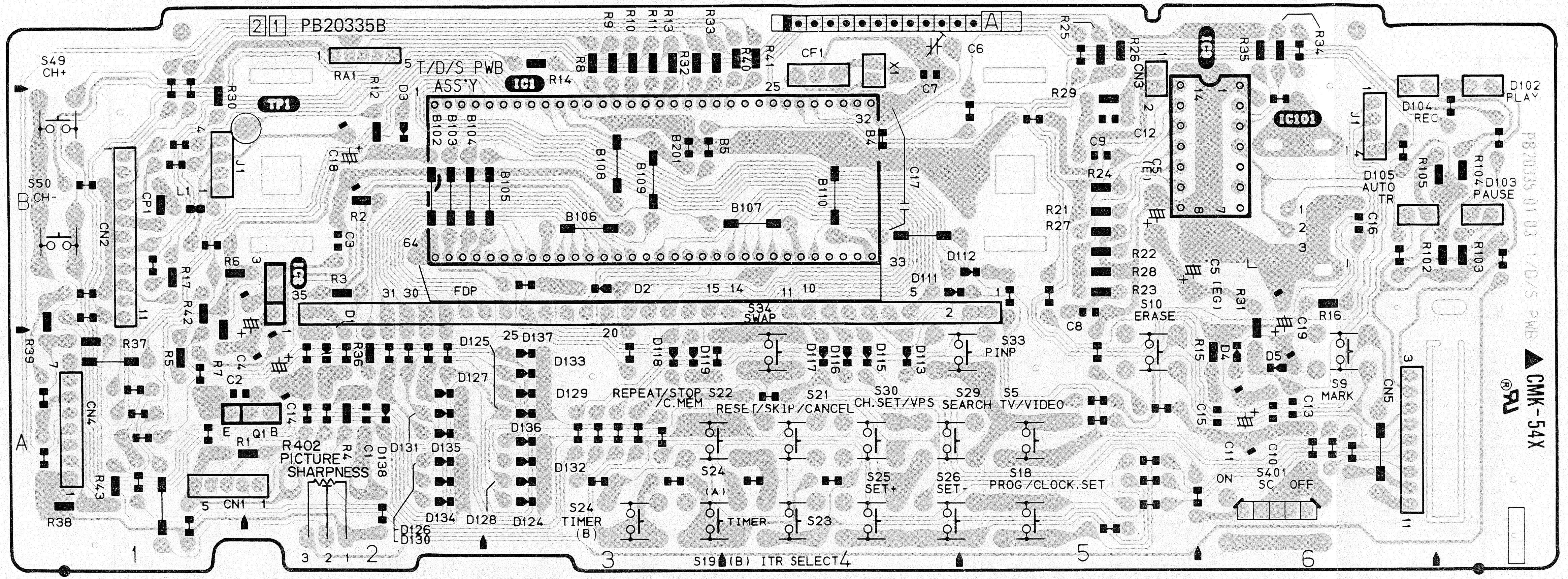
NO	KEY NAME
126	TRANSFER
125	MEMO CANCEL
124	MEMO PROGR
123	REC
122	⊣▶◀⊢
121	OPERATE (TV)
120	VOL
119	VOL +
118	AV (TV)
117	BRIGHT
116	BRIGHT +
115	MUTE
114	COLOR
113	COLOR +
70	SOLARIZATION
69	DIGITAL OFF
68	DIGITAL MEMORY
60	GO TO
57	DISPLAY
56	DIRECT PROGR
55	DIRECT CANCEL
54	TIMER
53	VPS CH
52	0 AV
50	SP/LP
42	9 REPEAT
41	8 DIALY
40	7
39	6
38	5
37	4
36	3
35	2
34	1
26	>CURS
25	<CURS
22	SLOW –
21	SLOW +
14	PAUSE STILL
13	PLAY
12	OPERATE
8	REW
7	FF
4	STOP

Gesamtverdrahtungsplan
Overall wiring diagram

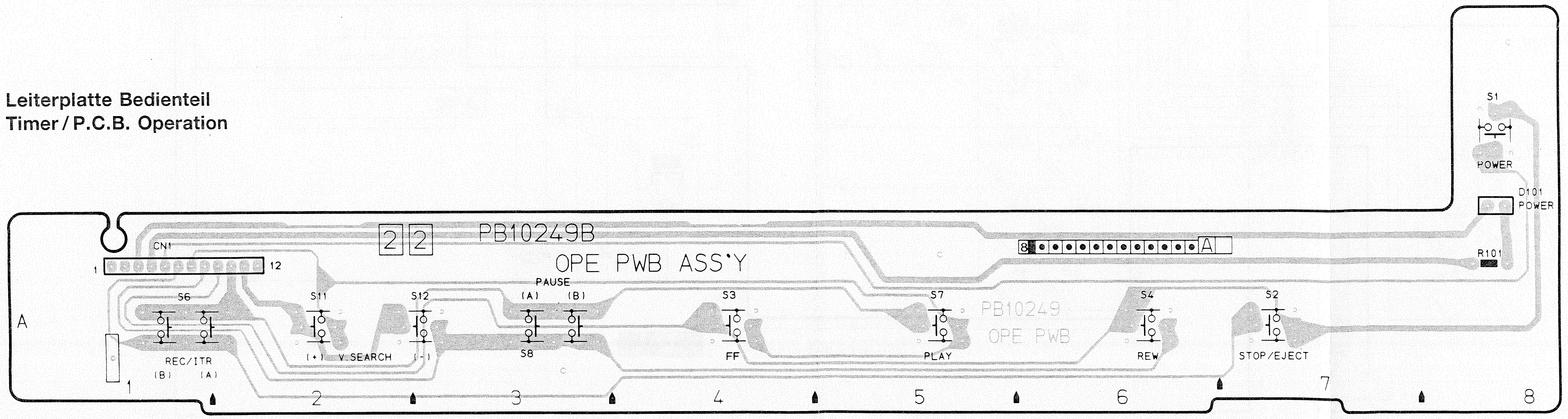

AC 220V 50/60Hz
BRN
BLU
01 POWER TRANS
CN1
UNREG 17V (M)
GND (M)
GND
UNREG 17V
BIAS
UNREG 9V
45V
CN2
21 TIMER / DISPLAY / SW
CN1
CLK REF
AC 3.9V
AC 3.9V
-30V
GND
CN4
CN5
CN2
CN603
S DATA
S CLOCK
REMOTE
SWD 5V
UNSW 5.8V
GND
TIMER CLOCK
TIMER DATA
CTL CLOCK
PICTURE SHARPNESS
A/V IN OUT
GND
VIDEO IN
VIDEO OUT
GND (V)
GND (V)
GND
GND
GND
RF 12V
AUDIO IN
GND
GND (A)
AUDIO OUT
AUDIO IN
AUDIO OUT
REMOTE PAUSE
RF OUT
RF IN
RF CONVERTER
RF VIDEO OUT
GND
RF AUDIO OUT
SWD 12V
UNSW 12V
03 MAIN
CN804
CN803
CN201
UNREG 18V
GND
CN202
VPT 12V
GND
19 POWER TRANSISTOR
CN801
UNREG 18V (M)
GND (M)
GND
UNREG 18V
BIAS
UNREG 9V
45V
CN1
P SHARPNESS
POWER LED
SWD 5V
KS 0
KS 1
KS 2
KS 3
a
b
c
GND
22 OPERATION
CN901
GND
S-CLK
RESET
CS
S-DATA
GND
PROG
TUNER
CN201
CN1
VIDEO IN (TNR)
GND
VIDEO IN (AUX)
GND
LP VIDEO OUT
LP VIDEO IN
SWD 5V
EE
V PULSE ON
VIDEO OUT
V PULSE
SHARPNESS CTL
COMP SYNC
CN2
CN 202
COLOR IN
YNR ON
AUX / TNR
COLOR ROT
SP
PB FM
REC FM
PB Y
SWD 5V
SWD 12V
SECAM
GND
REC COLOR
CN 203
CN3
PB COLOR
GND
Fsc
3Fsc
GND
COLOR OUT
B / W
SWD 5V
APC ERROR
SECAM
05 VIDEO UNIT
CN701
45V
UNSW 12V
GND
TNR VIDEO
VPT VIDEO OUT
GND
TNR AUDIO
CN605
GND
AUDIO MUTE
TNR CTL
PLL DATA
SYNC DET
S/M/P CLK
LOCK DET
ENABLE
CN1
CN2
08 TUNER CONTROL
JP1
AGC
NC
IF
GND
NC
MUTE
NC
NC
SYNC
AUDIO
GND
VIDEO
GND
VPT
GND
SWD 12V
07 IF
56 CASS HOUSING
CN2
51 DECK TERMINAL
CN3
CASS
MOTOR 12V
GND
START SENS
CN1
CN601
START SENS
CASS SENS
GND
MODE SENS 2
REEL FG (TU)
SWD 5V
REC SAFETY
MODE SENS 1
END SENS
GND (M)
REV
CAP CTL (V)
CAP FG
MOTOR 12V
57 CAP MDA
CAP MOTOR
CN2
CAP REV
SWD 5V
CAP FG
GND
GND (M)
CAP CTL (V)
MOTOR 12V
58 DRUM MOTOR
DRUM MOTOR
CN1
MOTOR 12V
GND (M)
DRUM FG/PG
DRUM DRIVE
55 LOADING MDA
LOADING MDA
CN1
CN602
MOTOR 12V
LCM 2
GND (M)
LCM 1
CN401
MOTOR 12V
GND (M)
DRUM FG/PG
DRUM DRIVE
12 A/C HEAD
CN2
CN1
CTL
R/P
AE
F.E (FULL ERASE)
CN2
FULL ERASE
GND
CN402
CTL HEAD (+)
CTL HEAD (-)
GND
CN1
REC
PB
GND
AUDIO ERASE
41 UPPER DRUM
CH-1
CH-2
SPECIAL
43 PRE / REC
CN4
REC (-)
PB/REC (+)
REC (-)
PB/REC (+)
CN1
CN2
CN204
COMP SYNC
GND
PB FM
REC FM COLOR
PB COLOR
GND
CN205
A/M/S SEL
COLOR ROT
SP
DRUM FF
SWD 5V
REC START

58	DRUM MOTOR
57	CAP MDA
56	CASS HOUSING
55	LOADING MDA
54	
53	
52	
51	DECK TERMINAL
43	PRE/REC AMP
42	
41	UPPER DRUM
22	OPERATION
21	TIMER/DISP/SW
19	POWER TRANSISTOR
17	ON SCREEN
12	A/C HEAD
08	TUNER CTL
07	IF
06	
05	VIDEO UNIT
04	
03	MAIN
02	
01	POWER TRANS
NO	NAME

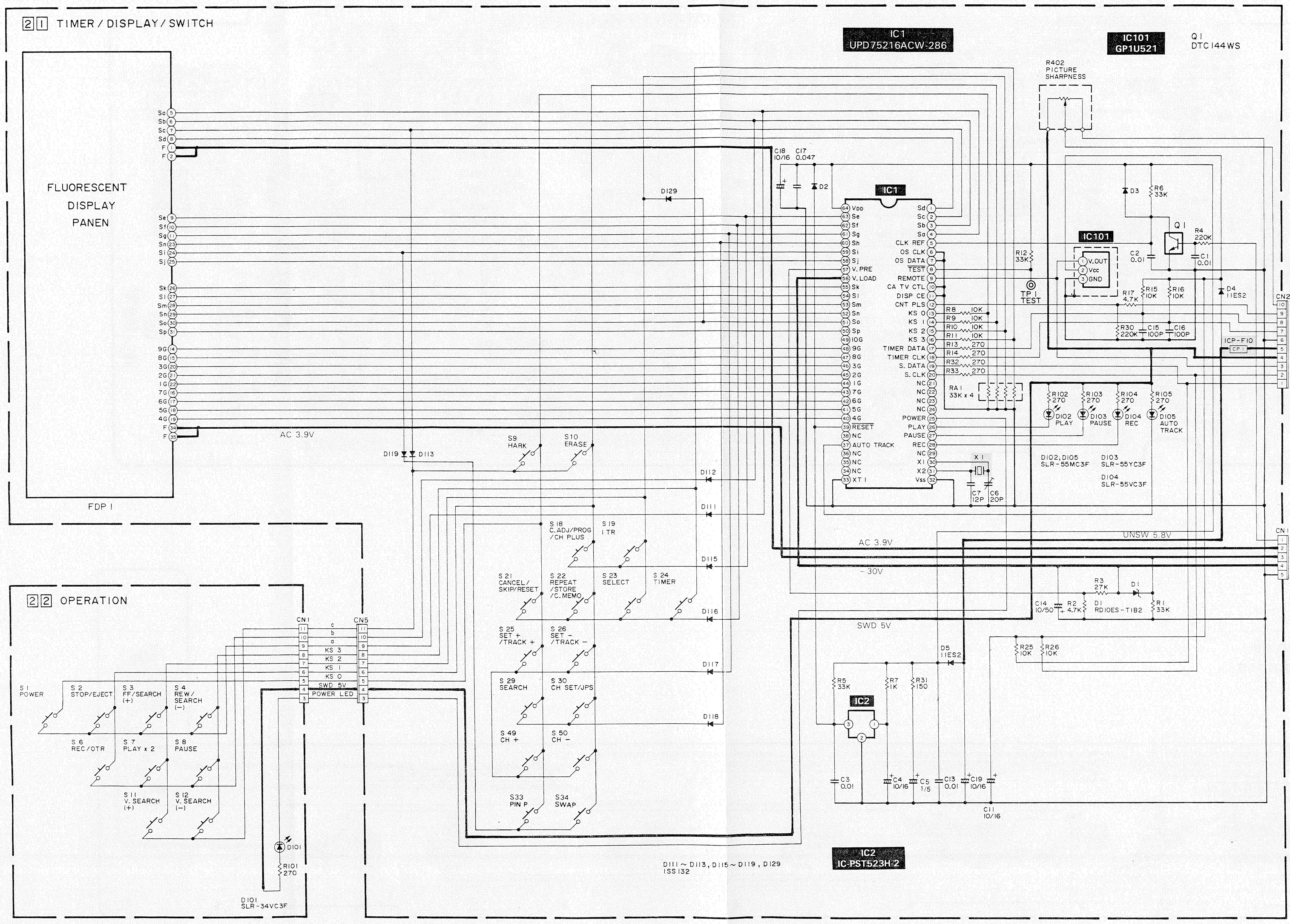
Leiterplatte Timer / Display
P.C.B. Timer / Display


2 1 PB20335B
T/D/S PWB ASS'Y
IC1
IC2
IC3
IC101
TP1
S49 CH+
S50 CH-
RA1
R12
D3
R14
R8
R9
R10
R11
R13
R33
R32
R40
R41
CF1
X1
C6
C7
R25
R26
CN3
R35
R34
D102 PLAY
D104 REC
D103 PAUSE
D105 AUTO TR
R104
R105
R102
R103
C16
J1
R30
C18
L1
CP1
CN2
R2
C3
R6
R17
R42
R3
B102
B103
B104
B105
B108
B109
B201
B5
B4
B106
B107
B110
C17
D2
FDP
D1
D111
D112
R29
C12
C9
C5 (E1)
R24
R21
R27
R22
R28
R23
C5 (EG)
R31
S10 ERASE
C8
C19
R16
S34 SWAP
S33 PINP
S9 MARK
D4
D5
R15
C15
C13
C10
C11
S401 SC ON OFF
CN5
CMK-54X
R39
R37
R5
R7
C4
C2
C14
Q1 B E
R1
R36
R402 PICTURE SHARPNESS
R4
C1
D138
D125
D137
D127
D133
D129
D136
D131
D135
D132
D134
D128
D124
D126
D130
D118
D119
D117
D116
D115
D113
REPEAT/STOP S22 /C.MEM
S21 RESET/SKIP/CANCEL
S30 CH.SET/VPS
S29 SEARCH
S5 TV/VIDEO
S24 (A)
S25 SET+
S26 SET-
S18 PROG/CLOCK.SET
S24 TIMER (B)
TIMER
S23
S19 (B) ITR SELECT
CN4
CN1
R43
R38
A
B
1
2
3
4
5
6

Leiterplatte Bedienteil
Timer / P.C.B. Operation


2 2 PB10249B
OPE PWB ASS'Y
PB10249 OPE PWB
CN1
1
12
S6
REC/ITR (B) (A)
S11
S12
(+) V.SEARCH (-)
PAUSE (A) (B)
S8
S3
FF
S7
PLAY
S4
REW
S2
STOP/EJECT
S1
POWER
D101 POWER
R101
A
1
2
3
4
5
6
7
8

Timer / Display und Bedienung
Timer / Display and Operation



2 1 TIMER / DISPLAY / SWITCH
IC1 UPD75216ACW-286
IC101 GP1U521
Q1 DTC144WS
FLUORESCENT DISPLAY PANEN
FDP 1
R402 PICTURE SHARPNESS
C18 10/16
C17 0.047
D2
D3
R6 33K
Q1
R4 220K
C1 0.01
C2 0.01
IC101
V.OUT
Vcc
GND
R12 33K
TP1 TEST
R17 4.7K
R15 10K
R16 10K
D4 11ES2
R8 10K
R9 10K
R10 10K
R11 10K
R13 270
R14 270
R32 270
R33 270
R30 220K
C15 100P
C16 100P
ICP-F10
CP1
RA1 33K x 4
R102 270
R103 270
R104 270
R105 270
D102 PLAY
D103 PAUSE
D104 REC
D105 AUTO TRACK
D102, D105 SLR-55MC3F
D103 SLR-55YC3F
D104 SLR-55VC3F
X1
C7 12P
C6 20P
Vdd
RESET
AUTO TRACK
XT1
CLK REF
OS CLK
OS DATA
TEST
REMOTE
CA TV CTL
DISP CE
CNT PLS
KS 0
KS 1
KS 2
KS 3
TIMER DATA
TIMER CLK
S. DATA
S. CLK
POWER
PLAY
PAUSE
REC
X1
X2
Vss
V. PRE
V. LOAD
AC 3.9V
D129
D119
D113
D112
D111
D115
D116
D117
D118
S9 MARK
S10 ERASE
S18 C.ADJ/PROG /CH PLUS
S19 ITR
S21 CANCEL/ SKIP/RESET
S22 REPEAT /STORE /C.MEMO
S23 SELECT
S24 TIMER
S25 SET + /TRACK +
S26 SET – /TRACK –
S29 SEARCH
S30 CH SET/JPS
S49 CH +
S50 CH –
S33 PIN P
S34 SWAP
D111 ~ D113, D115 ~ D119, D129 1SS132
From / To 0 3 MAIN (MECHACON) CN603
CN2
P. SHARPNESS
CTL CLOCK
TIMER DATA
TIMER CLK
GND
UNSW 5.8V
SWD 5V
REMOTE
S. CLK
S. DATA
From / To 0 1 POWER TRANS CN2
CN1
CLK REF
AC 3.9V
AC 3.9V
–30V
GND
UNSW 5.8V
AC 3.9V
– 30V
SWD 5V
R3 27K
D1
C14 10/50
R2 4.7K
D1 RD10ES-T1B2
R1 33K
R25 10K
R26 10K
D5 11ES2
R5 33K
R7 1K
R31 150
IC2
C3 0.01
C4 10/16
C5 1/5
C13 0.01
C19 10/16
C11 10/16
IC2 IC-PST523H-2
2 2 OPERATION
CN1
CN5
KS 3
KS 2
KS 1
KS 0
SWD 5V
POWER LED
S1 POWER
S2 STOP/EJECT
S3 FF/SEARCH (+)
S4 REW/ SEARCH (–)
S6 REC/OTR
S7 PLAY x 2
S8 PAUSE
S11 V. SEARCH (+)
S12 V. SEARCH (–)
D101
R101 270
D101 SLR-34VC3F